# SERVICE MANUAL

# S-2770RCP II

## Stereo Receiver

## Specifications

**Power Output, Continuous RMS with no more than 0.02% THD**
at 8ohms, 20~20,000Hz...70W
at 8ohms, 1KHz.....75W
**Intermodulation Distortion, 60Hz:7 KHz=4:1 SMPTE**
70W output into 8ohms...0.02%
**Damping Factor at 1KHz, 8ohms** .....70
**Input Sensitivity for 70W output 8 ohms at 1KHz**
Phono.....2.5mV
Line Inputs.....150mV
**Phono Preamp Input Overload**
at 1KHz, 0.1% THD.....170mV
at 10KHz, 0.1% THD.....750mV

**Singal to Noise Ratio, IHF "A" wtd/unwtd**
Phono.....80/75dB
Line Inputs.....95/90dB
**Frequency Response**
Phono, RIAA 30-20,000KHz.±0.5dB
Line Inputs at 1W, −3dB.5Hz-40KHz
**7 Band EqualizerControl** .....± 10dB
**(63Hz, 150Hz, 400Hz, 1kHz, 2.5kHz, 6kHz, 16kHz)**
**Subsonic Filter**.....30Hz
**(12dB/Oct), −3dB Frequency**
**Loudness Contour**
at 100Hz.....+7dB
at 10KHz.....±3.5dB
**Channel Separation at AUX Input Shorted**
100Hz.....60dB
1KHz.....60dB
10KHz.....50dB

### FM SECTION

**Tuning Range**.....USA/Canada/Australia Version:87.5—108MHz, Europe Version:87.50—108.00MHz
**Scanning Frequency Interval(Auto/Manual)**.....USA/Canada/Australia Version:0.1MHz Europe Version:0.05MHz
**Usable Sensitivity IHF at S+N+D/N=30dB**.....1.9μV(10.8dBf)
**50dB Quieteting Sensitivity**...38μV(36.8dBf)
**THD at 1KHz, 100% MOD,**
Mono.....0.15%
Stereo.....0.25%
**Stereo Separation at 1KHz**..45dB
**Singal to Noise Ratio 1HF,**
Mono.....80dB
Stereo.....70dB
**Frequency Response 20Hz-15KHz**.....+0.5/−3dB
**Audio Output Voltage, 1KHz, 100% Mod.**.....600mV
**De-emphasis**.....USA/Canada Version:75μSec Australia/Europe Version: 50μ Sec

### AM SECTION

**Tuning Range**.....USA/Canada Version: 520-1710KHz Australia/Europe Version: 522-1611KHz
**Scanning Frequency Interval(AUTO/Manual)**.....USA/Canada Version:10KHz Australia/Europe Version: 522-1611KHz 9KHz
**Usable Sensitivity IHF at S+N/N=20dB, Loop Ant.**.....500μV/m
**Signal to Noise Ratio, 30% Mod Ref.**.....40dB
**Audio Output Voltage, 400Hz, 30% Mod.**.....150mV
**Power Consumption**.....150W(47~340W)
**Dimensions(W×H×D)**.....440×130×330mm
**Weight**.....9.6Kg

**NOTE:**
Specifications and design subject to change without notice for improvements.

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# MEMO

# MEMO

# Electrical Adjustment Procedure

## 1. AM SECTION

### 1-A. IF ALIGNMENT

a. Set the Function switch to AM.
b. Set up the test equipment as Fig. 1-1 and set the IF Genescope output level to 80dB(10mV).
c Adjust L215 and L216 so that figure developed on the genescope becomes laterally symmetrical with the axis of symmetry at 450KHz and it has a maximum amplitude as well.

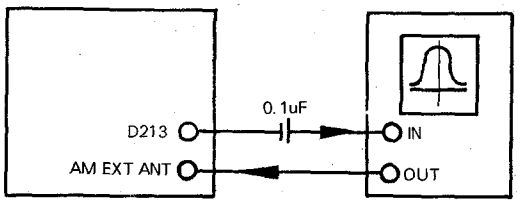



Fig.1-1

### 1-B. AM TUNING VOLTAGE ALIGNMENT

a. Set the Function switch to AM.
b. Set up the test equipment as Fig. 1-2.
c. Set the frequency of Tuner to 1710KHz
d. Adjust TC6 so that DVM reads DC 8V±0.1V.
e. Set the frequency of Tuner to 520KHz.
f. Adjust L217 so that DVM read DC1V±0.1V.
g. Repeat steps c to f until DVM reads given voltage at given frequencies.

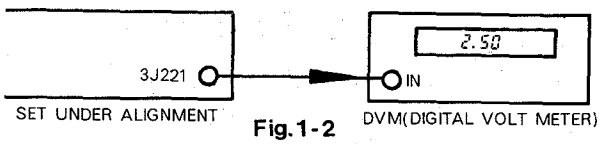



Fig.1-2

### 1-C. RF TUNING ALIGNMENT

a. Set the Function switch to AM.
b. Set up the test equipment as Fig. 1-3.
c. Set the AM SG to 30% Modulation at 400Hz and 70-80dB output(3-10mV which gives field intensity 150-500$\mu$V/m to the loop antenna).
d. Set AM SG to 600KHz and set the frequency of Tuner to 600KHz and then adjust L214 to maximize audio output level.
e. Set AM SG to 1400KHz and set frequency of Tuner to 1400KHz and then adjust TC5 to maximize audio output level.
f. Repeat steps d and e so that output is maximized at the given frequencies.

### 1-D SIGNAL METER ALIGNMENT

a. Set up the test equipment as Fig. 1-4.
b. Set the AM SG to 1000KHz and adjust the output level control so that AM SG output level is 100dB(5mV).
c. Adjust VR205 so that the fifth LED of signal meter lights brightly.

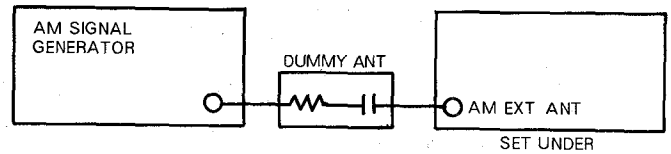



Fig.1-4

## 2. FM SECTION

### 2-A. FM TUNING VOLTAGE ALIGNMENT

a. Set the Function switch to FM.
b. Set up the test equipment as Fig. 2-1.
c. Set the frequency of Tuner to 108.0MHz
d. Adjust L207 so that DVM reads DC8.5V ±0.1V

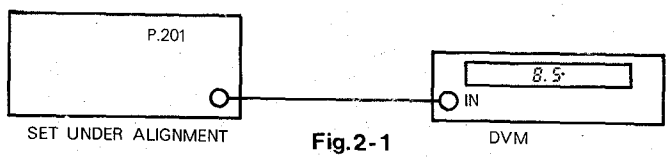



Fig.2-1

### 2-B. IF ALIGNMENT

a. Set the Function switch to FM.
b. Set up the test equipment as Fig. 2-2.
c. Adjust the core of L210 and L211 so that the S-curve developed on the IF genescope becomes point symmetrical to the center frequency point of 10.7MHz with a maximum amplitude and the voltage between P.203 and P.204 is 0V± 50mV.

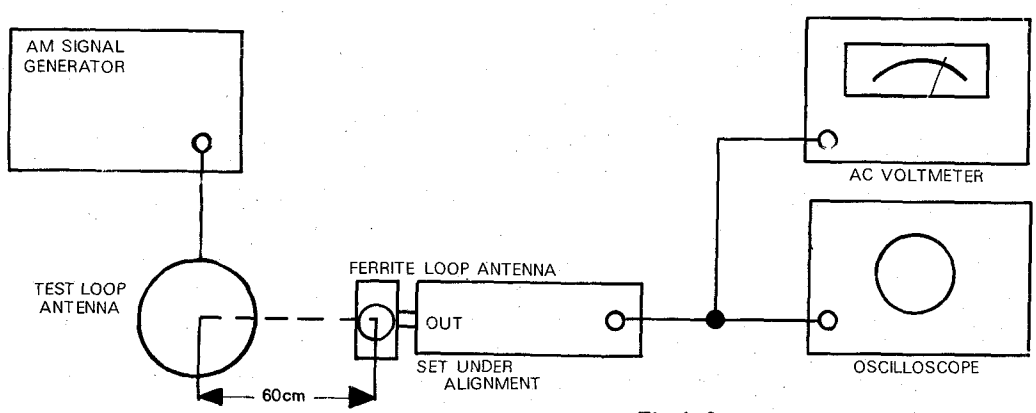



Fig.1-3

d. If the IF genescope is not available, set the tuner detuned and adjust the core of L210 and L211 which is near the I.C101 so that noise output is maximized and the voltage between P203 and P204 is 0V±50mV.

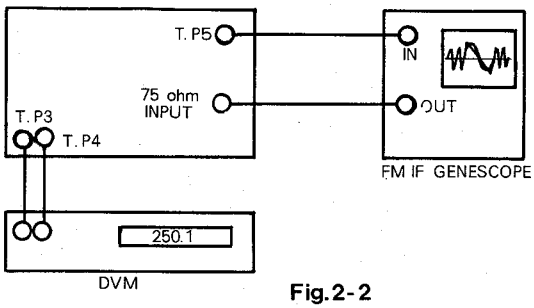



Fig.2-2

## 2-C. RF TUNING ALIGNMENT

a. Set up the test equipment as Fig. 2-3.
b. Set FM SG to 75KHz deviation at 1KHz and 2-3$\mu$V output.
c. Set the frequency of Tuner to 90MHz and then adjust cores of L201, L202, L203, L204 and L205 so that audio output is maximized.
d. Set the frequency of Tuner to 106MHz and adjust TC1, TC2, and TC3 so that audio output is maximized.
e. Repeat steps c and d until no further improvement.
f. Set the frequency of Tuner to 98MHz and then adjust core of L211 so that distortion is minimized.

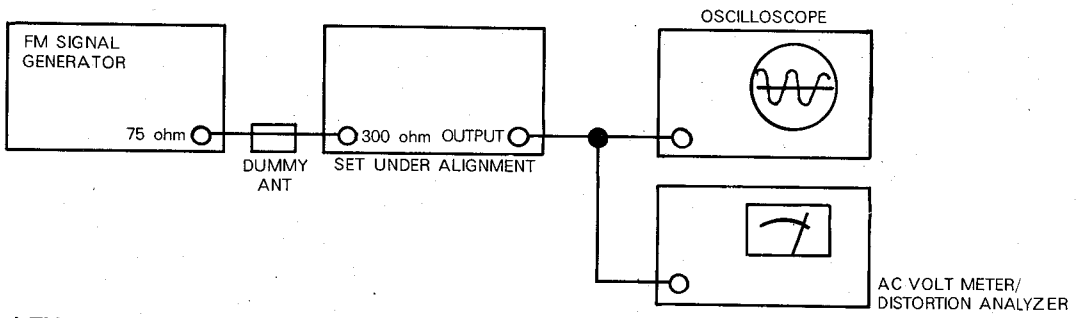



Fig.2-3

## 2-D. MUTE LEVEL ALIGNMENT

a. Set the mode/mute switch to ON position.
b. Set the test equipment as Fig. 2-3.
c. Set the FM SG to 7-10$\mu$V output.
d. Tune FM SG and Tuner to 98.0MHz and stop adjusting VR201 at the position where muting marginally occurs.

## 2-F. SIGNAL METER ALIGNMENT

a. Set up the test equipment as Fig. 2-3.
b. Set the FM SG to 98MHz and adjust the output level control so that FM SG output level is 60dB(1mV).
c. Adjust VR202 so that the fifth LED of signal meter lights brightly.

## 2-E. MPX ALIGNMENT

a. Set the mode/mute switch to STEREO.
b. Set up the test equipment as Fig. 2-4.
c. Set FM SG to 60dB(1mV)and MPX SG to 75KHz deviation at 1KHz for left(right)channel 7.5KHz deviation for 19KHz pilot signal.
d. Set the frequency 98.0MHz.
e. Set FM SG to modulation OFF position and adjust VR203 so that frequency counter reads 76KHz.
f. Adjust L209 to minimize Distortion.

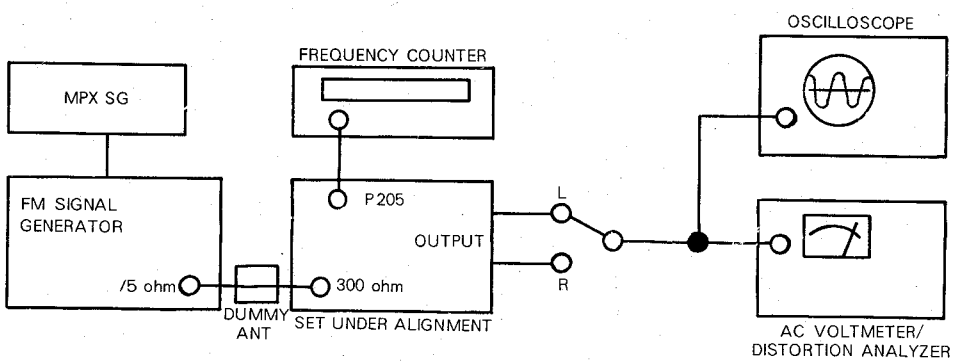
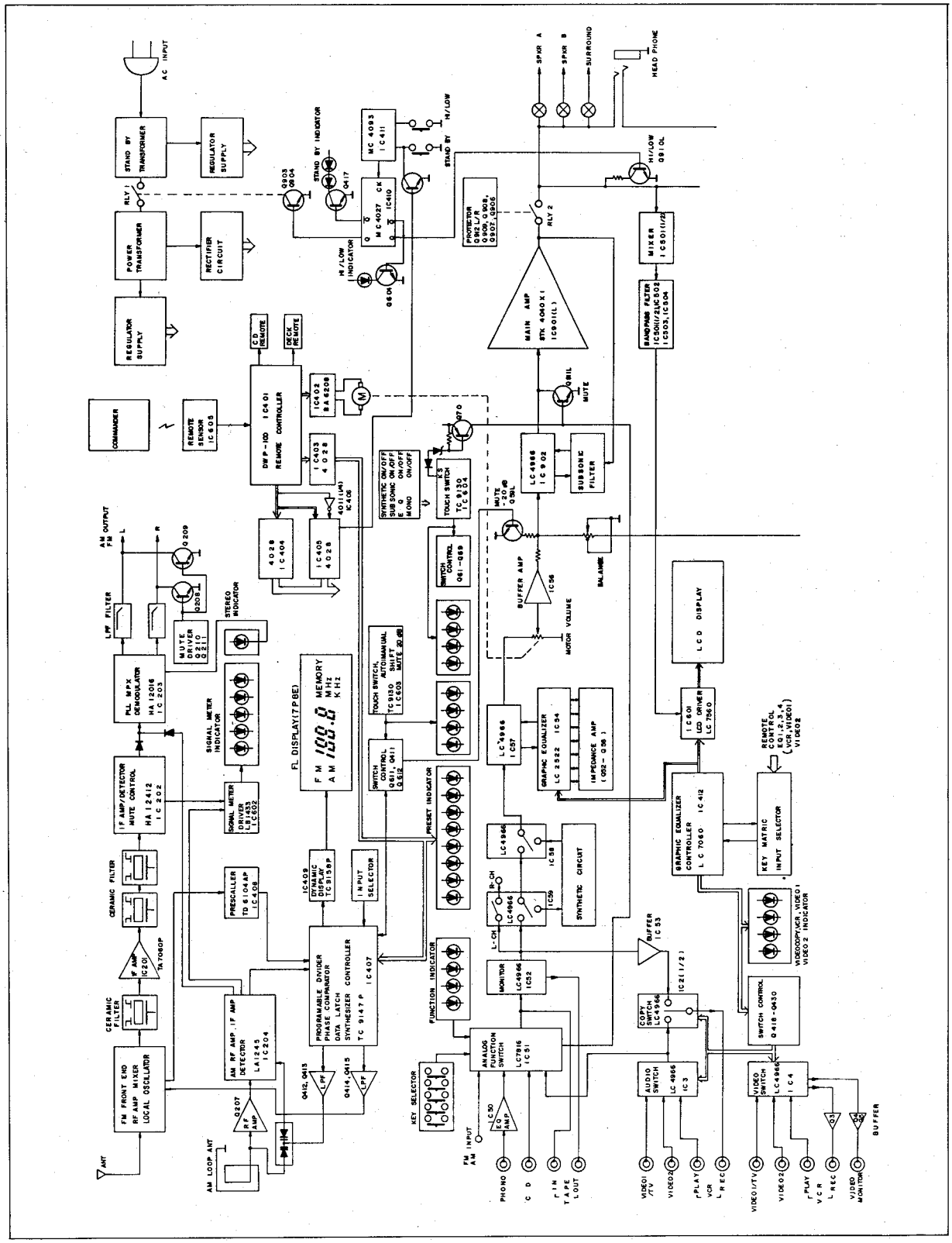



Fig.2-4

# Block Diagram



# Parts List & Top View of P.C Boards

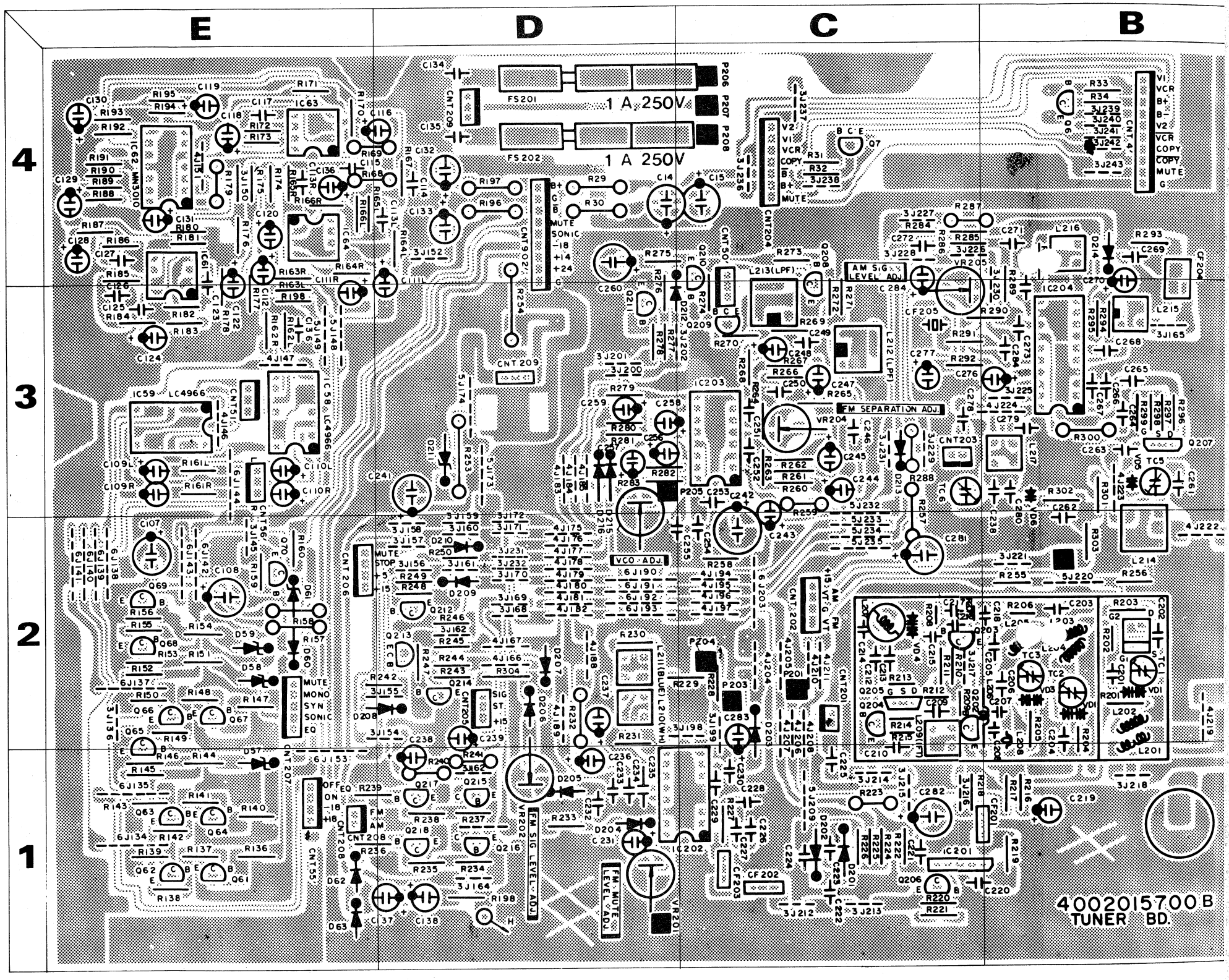
## TUNER BOARD 4002015700B

| Ref No. | Part No. | Description | Position |
|---|---|---|---|
| **● IC** | | | |
| IC201 | 2168407101 | IC TA7060 | C1 |
| IC202 | 2168411106 | IC HA12412 | C1 |
| IC203 | 2168411105 | IC HA12016 | C3 |
| IC204 | 2168417100 | IC LA1245 | B3 |
| IC58, IC59 | 2138017108 | IC LC4766 | E3 |
| IC61 | 2168010102 | IC MN3101 | E4 |
| IC62 | 2168024106 | IC MN3010 | E4 |
| IC63, IC64 | 2168220103 | IC NJM4560D | E4 |
| **● FET** | | | |
| Q201 | 2018207104 | 3SK73GR | B2 |
| Q205 | 2018206110 | KTK 161YR | C2 |
| Q207 | 2018211100 | 2SK 168D | B3 |
| **● TRANSISTOR** | | | |
| Q202, Q203 Q204 | 2008406103 | KTC 1723Y | C2 |
| Q206 | 2008406101 | KTC 380TM | C1 |
| Q6, Q7, Q211 Q212, Q213 Q214, Q217 Q218, Q68 Q69, Q65, Q66, Q63 Q62, Q208 Q209 | 2208606104 | KTC 1815Y | |
| Q210, Q70 Q61, Q64 Q67, Q215 | 2208206105 | KTA 1015Y | |
| Q215, Q216 | 2008209191 | MPS A55 | D1 |
| **● DIODE** | | | |
| D201, D202 | 2058010100 | IN 60 PAIR | C1 |
| D203, D204 D205, D206 D207, D208 D209, D210 D212, D213 D214, D215 D216, D60 | 2058306101 | IN 4148 | |
| D211 | 2058513124 | RD 5.6EF2 | D3 |
| D57, D58 D59 | 2058513113 | RD 24EB4 | E2 |
| D61 | 2058513108 | RD 15EB1 | E2 |
| VD1, VD2 VD3, VD4 | 2058819107 | VARACTOR KV1310A | B2 |
| VD5, VD6 | 2058819106 | VARACTOR KV1236Z | B3 |
| **● FUSE** | | | |
| FS201, FS202 | 5508212031 | NB 1A1250V | D4 |
| **● COIL** | | | |
| L201 | 2648001260 | Coil FM ANT A | B2 |
| L202, L203 | 2648001290 | Coil FM RFI-A | B2 |
| L204, L205 | 2648001300 | Coil FM RFI-B | B2 |
| L206 | 2648601010 | Coil Inductor 2.2μH | C2 |
| L207 | 2638001060 | Coil FM OSC | C2 |
| L208 | 2648601270 | Coil Inductor 2.2μH | B2 |
| L209 | 2838001030 | Coil FM 1FT | C2 |
| L210 | 2838501110 | Coil FM DET(A) | D2 |
| L211 | 2838501120 | Coil FM DET(B) | D2 |
| L212, L213 | 2658001050 | Coil μPX FILTER | C3 |
| L214 | 2608201110 | Coil AM RF | B2 |
| L215 | 2848001070 | Coil AM 1FT1 | B3 |
| L216 | 2848001070 | Coil AM IFT2 | B4 |
| L217 | 2638201150 | Coil AM OSC | B3 |
| **● CERAMIC FILTER** | | | |
| CF201, CF202 CF203 | 3908011001 | SFE 10.7μA 8-A | C1 |
| CF204 | 3908001010 | SEP 450H | B3 |
| CF205 | 3908001020 | BFU 450C 4N | C3 |
| **● TRIMMER** | | | |
| TC1, TC3 | 3838001000 | TZ03-110F | B2 |
| TC2, TC5 TC6 | 3838001010 | TZ03-R200F | B3 |

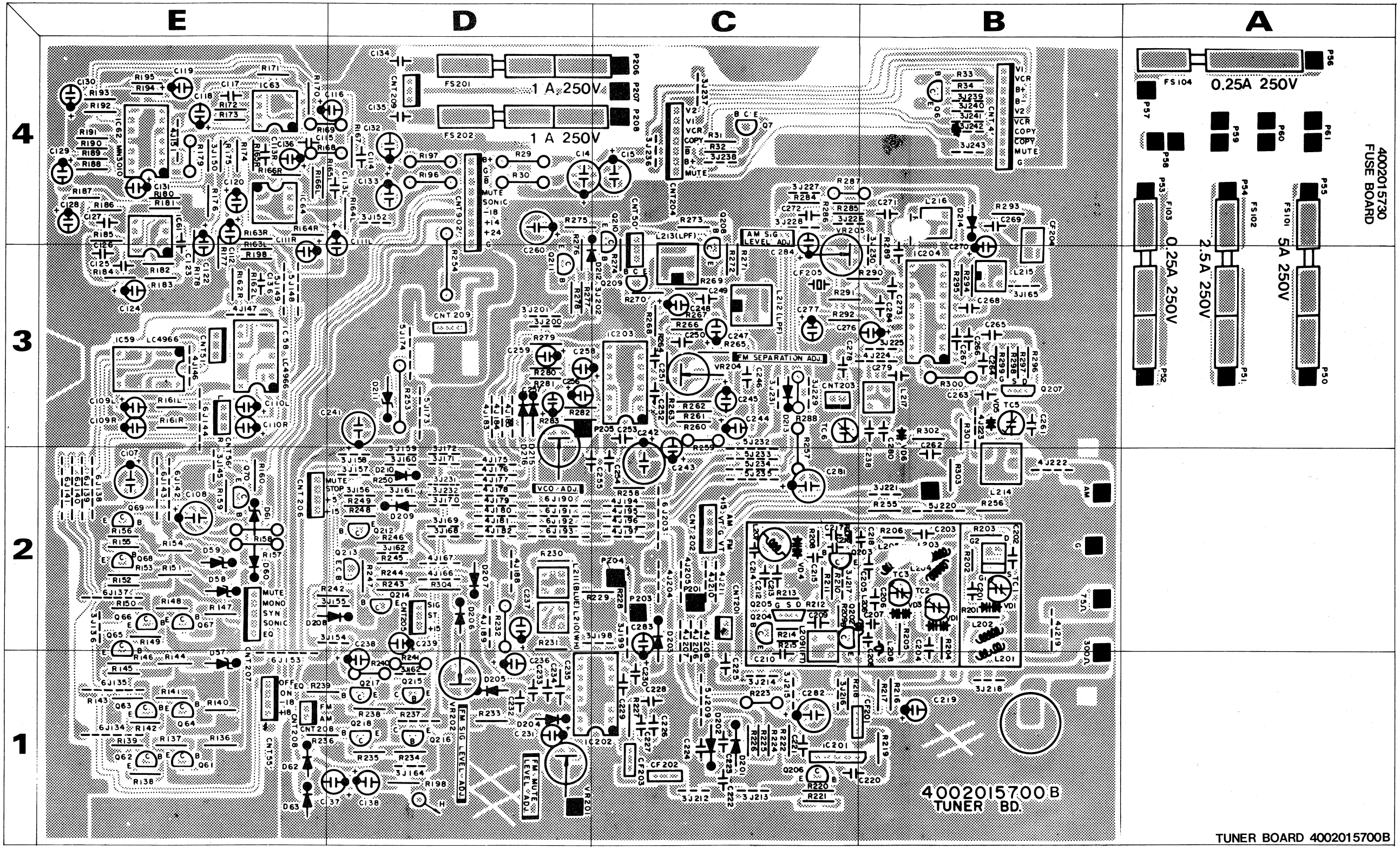
| Ref. No. | Part No. | Description | Position |
|---|---|---|---|
| **● SEMI-FIXED RESISTOR** | | | |
| VR201, VR202 VR205 | 3248333220 | SEMI FIXED RES 22K(B) | |
| VR203 | 3248333220 | SEMI FIXED RES 3.3K(B) | D2 |
| VR204 | 3248322420 | SEMI FIXED RES 220K(B) | C3 |
| **● RESISTOR** | | | |
| R201, R204 R205, R231 R280, R165R R166R, R182 | 3069333970 | C.F 33K ohm 1/8 W | |
| R202, R226 R255, R258 R278, R284 R295, R301 R302, R180 R190, R191, R192, R198 | 3069104970 | C.F 100K ohm 1/8 W | |
| R203, R210 R215, R296 | 3069101970 | C.F 100 ohm 1/8 W | |
| R206, R291 | 3069121970 | C.F 120 ohm 1/8 W | |
| R207 | | C.F 3.3K ohm 1/8 W | |
| R208 | | C.F 8.2K ohm 1/8 W | |
| R209, R256 R298 | 3069105970 | C.F 1M ohm 1/8 W | |
| R211, R236 R239, R249 R281, R290 R137, R138 R141, R142 R144, R146 R148, R149 R151, R153 R154, R156 R159, R160 R176, R178 R186 | 3069103970 | C.F 10K ohm 1/8 W | |
| R212, R279 R161L/R | 3069561970 | C.F 560 ohm 1/8 W | |
| R213, R214 | 3069474970 | C.F 470K ohm 1/8 W | |
| R216 | 3069681970 | C.F 680 ohm 1/8 W | |
| R217, R225 R233, R303 R162L/R R163L/R | 3069472970 | C.F 4.7K ohm 1/8 W | |
| R218, R228 R234, R237 R282, R289 | 3069102970 | C.F 1K ohm 1/8 W | |
| R219, R227 R275 | 3069331970 | C.F 330 ohm 1/8 W | |
| R220 | 3069271970 | C.F 270 ohm 1/8 W | |
| R221 | 3069272970 | C.F 2.7K ohm 1/8 W | |
| R222 | 3069470970 | C.F 47 ohm 1/8 W | |
| R224, R229 | 3069822970 | C.F 8.2K ohm 1/8 W | |
| R230, 2R260 R268, R269 R270, R271 R272, R273 R274, R286 R299 | 3069332970 | C.F 3.3K ohm 1/8 W | |
| R242, R247 R250, R276 R31, R32, R33, R34 R139, R143 R145, R150 R152, R155 R173 | 3069473970 | C.F 47K ohm 1/8 W | |
| R243, R244 R251, R252 R262, R265 R277, R136 R140, R147 R164L/R R167, R171 R175, R177 R183, R184 R185, R187 | 3069223970 | C.F 22K ohm 1/8 W | |
| R245 | 3069123970 | C.F 12K ohm 1/8 W | |
| R246 | 3069273970 | C.F 27K ohm 1/8 W | |

| Ref. No. | Part No. | Description | Position |
|---|---|---|---|
| R248 | 3069512970 | C.F 5.1K ohm 1/8 W | |
| R261, R266 | 3069392970 | C.F 3.9K ohm 1/8 W | |
| R263, R267 | 3069513970 | C.F 51K ohm 1/8 W | |
| R283, R188 | 3069562970 | C.F 5.6K ohm 1/8 W | |
| R189, R194 | | | |
| R195 | | | |
| R285, R293 | 3069222970 | C.F 2.2K ohm 1/8 W | |
| R174 | | | |
| R294 | 3069152970 | C.F 1.5K ohm 1/8 W | |
| R297 | 3069471970 | C.F 470 ohm 1/8 W | |
| R165L, R181 | 3069563970 | C.F 56K ohm 1/8 W | |
| R166L | 3069184970 | C.F 180K ohm 1/8 W | |
| R172 | 3069683970 | C.F 68K ohm 1/8 W | |
| R223, R287 | 3069560270 | C.F 56 ohm 1/4 W | |
| R232, R259 | 3069101270 | C.F 100 ohm 1/4 W | |
| R29, R30 | | | |
| R157, R158 | | | |
| R162, R169 | | | |
| R179 | | | |
| *0, R241 | 3069470270 | C.F 47 ohm 1/4 W | |
| ,7 | | | |
| R300, R196 | 3069221270 | C.F 220 ohm 1/4 W | |
| R197 | | | |
| R253 | 3039680572 | M.O 68 ohm 2W | D3 |
| R254 | 3039100572 | M.O ohm 2W | D3 |
| **●CAPACITOR** | | | |
| C201, C206 | 3529809110 | Ceramic 8PF/50V(RH) | |
| C208, C215 | | | |
| C209, C213 | 3529209210 | Ceramic 2PF/50V(CH) | |
| C212 | 3529109210 | Ceramic 1PF/50V(CH) | |
| C214 | 3529120110 | Ceramic 12PF/50V(RH) | |
| C216, C217 | 3529330210 | Ceramic 33PF/50V(CH) | |
| C218 | 3529150110 | Ceramic 15PF/50V(RH) | |
| C202, C217 | 3579103530 | Ceramic 0.01μF/50V | |
| C266, C273 | | | |
| C203, C204 | 3579223530 | Ceramic 0.022μF/50V | |
| C205, C210 | | | |
| C220, C221 | | | |
| C223, C224 | | | |
| C225, C226 | | | |
| C227, C261 | | | |
| C264, C265 | | | |
| C268, C269 | | | |
| C207 | 3579101130 | Ceramic 100PF/50V | |
| C222, C275 | 3579102530 | Ceramic 0.001μF/50V | |
| C228, C230 | 3579473530 | Ceramic 0.047μF/50V | |
| C232, C233 | | | |
| C234, C235 | | | |
| C262, C267 | | | |
| C274, C278 | | | |
| [illegible] | | | |
| [illegible] | 3579471130 | Ceramic 470PF/50V | |
| C250 | 3579560130 | Ceramic 56PF/50V | C3 |
| C263, C113L/R | 3579470130 | Ceramic 47PF/50V | |
| C123, C127 | | | |
| C254 | 3619681110 | Poly 680PF/50V | C2 |
| C255 | 3619102110 | Poly 1000PF/50V | D2 |
| C280 | 3619391110 | Poly 390PF/50V | B3 |
| C246, C249 | 3679332120 | Mylar 0.0022μF/100V | |
| C251, C252 | 3679152120 | Mylar 0.0015μF/100V | |
| C253, C134 | 3679473120 | Mylar 0.047μF/100V | |
| C135 | | | |
| C271 | 3679223120 | Mylar 0.022μF/100V | B4 |
| C272 | 3679333120 | Mylar 0.033μF/100V | C4 |
| C114, C136 | 3679122120 | Mylar 0.0012μF/100V | |
| C115, C125 | 3679102120 | Mylar 0.001μF/100V | |
| C219 | 3579247871 | Elect 0.47μF/50V | |
| C231, C237 | 3579210871 | Elect 1μF/50V | |
| C240, C243 | | | |
| C244, C248 | | | |
| C256, C259 | | | |
| C276 | | | |
| C109L/R | | | |
| C110L/R | | | |
| C236, C270 | 3579210161 | Elect 10μF/35V | |
| C111L/R | | | |
| C118, C122 | | | |
| C124, C131 | | | |
| C238, C239 | 3479247031 | Elect 47μF/16V | |

| Ref. No. | Part No. | Description | Position |
|---|---|---|---|
| C130 | 3479247031 | Elect 47μF/16V | |
| C241 | 3479210121 | Elect 100μF/10V | |
| C242 | 3479222131 | Elect 220μF/16V | |
| C245, C247 | 3479222031 | Elect 22μF/16V | |
| C257, C258 | 3479233971 | Elect 3.3μF/50V | |
| C119, C120 | | | |
| C129 | | | |
| C260, C281 | 3479210131 | Elect 100μF/16V | |
| C282, C132 | | | |
| C133, | | | |
| C277 | 3479247971 | Elect 4.7μF/50V | |
| C14, C15 | 3479210141 | Elect 100μF/25V | |
| C107, C108 | 3479247041 | Elect 47μF/25V | |
| C112, C128 | 3479222871 | Elect 0.22μF/50V | |



Position

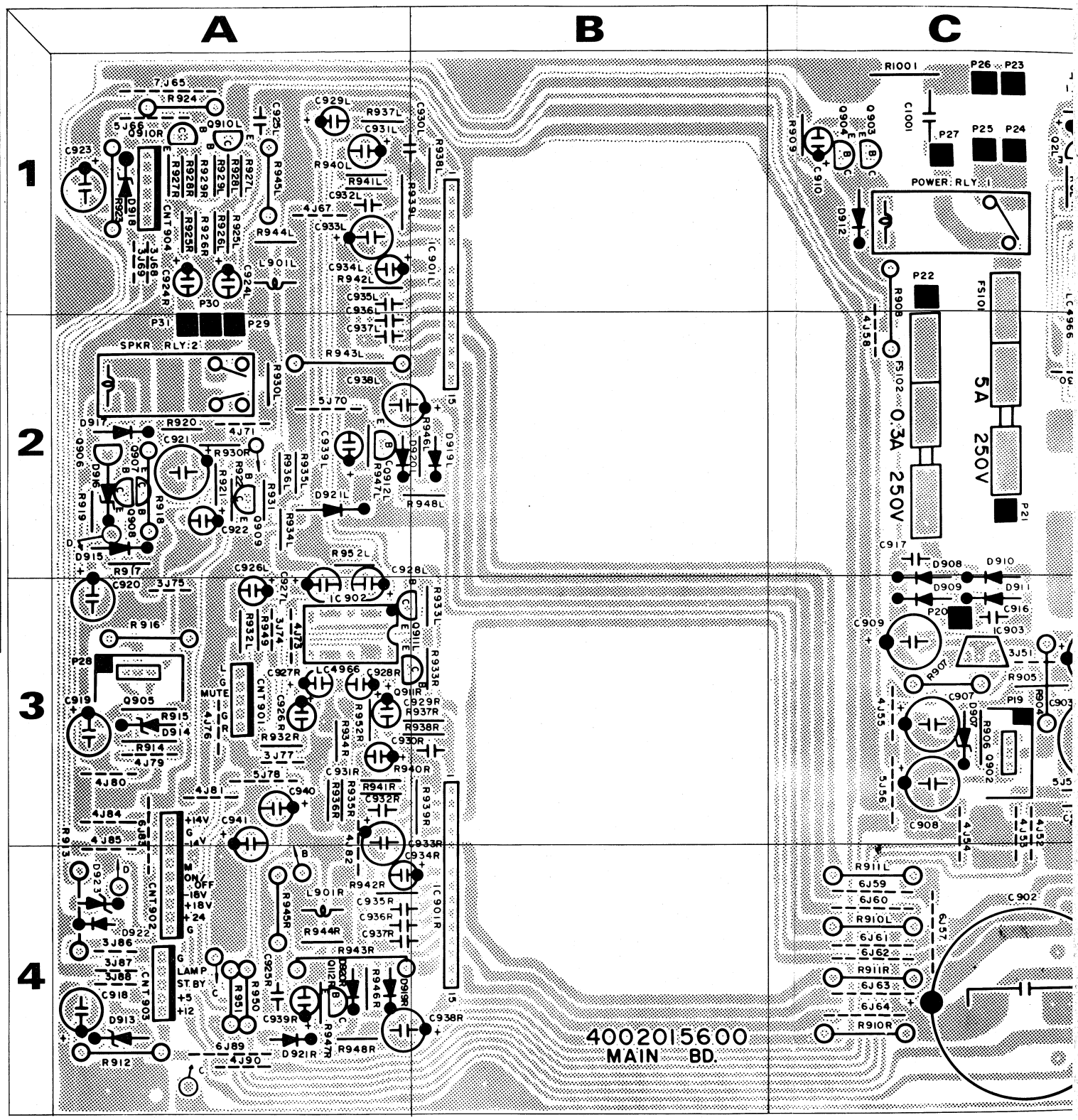

E
D
C
B
A
4
3
2
1
4002015730
FUSE BOARD
FS104
0.25A 250V
P56
P57
P58
P59
P60
P61
P53
P54
P55
F103
FS102
FS101
0.25A 250V
2.5A 250V
5A 250V
P52
P51
P50
FS201
1 A 250V
FS202
1 A 250V
4002015700B
TUNER BD.
TUNER BOARD 4002015700B

## MAIN BOARD 4002015600

| Ref. No. | Part No. | Description | Position |
|---|---|---|---|
| **● IC** | | | |
| IC901L/R | 2178317121 | IC STK 4040 | B1, B4 |
| IC902 | 2138017108 | IC LC 4966 | B3 |
| IC903 | 2168611101 | IC HA 17812 | C3 |
| **● DIODE** | | | |
| D901 | 2058126104 | KBPC 802 | D3, D4 |
| D902, D903 | 2058106100 | IN 4002 | D3, C3 |
| D904, D905 | | | |
| D908, D909 | | | |
| D910, D911 | | | |
| D912, D917 | | | |
| D906, D907 | 2058513111 | Zener RD20EB1 | |
| D913 | 2058513124 | Zener RD5, 6FB2 | A4 |
| D914, D916 | 2058513109 | Zener RD16EB1 | |
| D918 | 2058513108 | Zener RD15EB1 | A1 |
| D922 | 2258599123 | Zener RD 7.5EB1 | A3 |
| D915, | 2058306101 | IN 4148 | |
| D919L/R | | | |
| D920L/R | | | |
| D921L/R | | | |
| **● TRANSISTOR** | | | |
| Q901, Q905 | 2028406103 | KTD 880 | |
| Q902 | 2028106111 | KTB 834 | C3 |
| Q903, Q904 | 2008609101 | MPS A 05 | |
| Q906 | | | |
| Q912L/R | | | |
| Q907, Q908 | 2208606104 | KTC 1815Y | |
| Q910L/R | | | |
| Q909 | 2208206105 | KTA 1015Y | A2 |
| Q911L/R | 2008610102 | 2SD 1302S | A3 |
| **● RESISTOR** | | | |
| R909 | 3069223970 | C.F 22K ohm 1/8 W | |
| R929L/R | | | |
| R917 | 3069472970 | C.F 4.7K ohm 1/8 W | |
| R946L/R | | | |
| R947L/R | | | |
| R919 | 3069470970 | C.F 47 ohm 1/8 W | |
| R920 | 3069182970 | C.F 1.8K ohm 1/8 W | |
| R921, R931 | 3069222970 | C.F 2.2K ohm 1/8 W | |
| R936L/R | | | |
| R940L/R | | | |
| R922 | 3069273970 | C.F 27K ohm 1/8 W | |
| R926L/R | | | |
| R930L/R | | | |
| R925L/R | 3069563970 | C.F 56K ohm 1/8 W | |
| R935L/R | | | |
| R38L/R 938L/R | | | |
| R941L/R | | | |
| R952L/R | | | |
| R927L/R | 3069561970 | C.F 560 ohm 1/8 W | |
| R928L/R | 3069821970 | C.F 820 ohm 1/8 W | |
| R932L/R | 3069471970 | C.F 470 ohm 1/8 W | |
| R942L/R | | | |
| R933L/R | 3069332970 | C.F 3.3K ohm 1/8 W | |
| R934L/R | 3069473970 | C.F 47K ohm 1/8 W | |
| R902, R903 | 3069102270 | C.F 1K ohm 1/8 W | |
| R905, R906 | | | |
| R914, R915 | | | |
| R937L/R | | | |
| R939L/R | 3069103970 | C.F 10K ohm 1/8 W | |
| R950, R951 | 3069470270 | C.F 47 ohm 1/4 W | |
| R901, R904 | 3039339472 | M.O 3.3 ohm 1W | |
| R907 | | | |
| R908 | 3039820472 | M.O 82 ohm 1W | C1 |
| R910L/R | 3039470472 | M.O 47 ohm 1W | |
| R911L/R | | | |
| R912 | | | |
| R913 | 3039271472 | M.O 270 ohm 1W | A4 |
| R916, | 3039100472 | M.O 10 ohm 1W | |
| R945L/R | | | |
| R918, R924 | 3039220472 | M.O 22 ohm 1W | |
| R943L/R | | WW 0.27 ohm 5W | A2, A4 |
| R1001 | | C.F 3.3M ohm 1/2 W | C1 |
| **● CAPACITOR** | | | |
| C930L/R | 3579471130 | Ceramic 470pF/50V | |
| C932L/R | 3579309130 | Ceramic 3pF/50V | |
| C935L/R | 3579102530 | Ceramic 0.001μF/50V | |
| C936L/R | 3579101130 | Ceramic 100pF/50V | |
| C937L/R | 3579222530 | Ceramic 0.0022μF/50V | |
| C912, C913 | | Mylar 0.33μF/150V | |
| C914, C915 | 3679473120 | Mylar 0.047μF/100V | |
| C916, C917 | | | |
| C925L/R | | | |
| C901, C902 | 3409282281 | Elect 8200μF/63V | C4, D4 |
| C903 | 3409210251 | Elect 1000μF/35V | C3 |
| C904 | 3409247151 | Elect 470μF/35V | C3 |
| C905, C906 | 3409222141 | Elect 220μF/25V | |
| C907, C908 | | | |
| C909 | 3409233141 | Elect 330μF/123 25V | |
| C910, C922 | 3479210971 | Elect 1μF/50V | |
| C924L/R | | | |
| C926L/R | | | |
| C934L/R | | | |
| C918 | 3479210121 | Elect 100μF/10V | |
| C931L/R | | | |
| C919, C923 | 3479210131 | Elect 100μF/16V | |
| C920 | 3409233131 | Elect 330μF/16V 33 | A3 |
| C921 | 3409247121 | Elect 470μF/10V | A2 |
| C927L/R | 3479247871 | Elect 0.47μF/50V | |
| C928L/R | | | |
| C929L/R | 3479247971 | Elect 4.7μF/50V 3479 | |
| C939L/R | | | |
| C933L/R | 3479233081 | Elect 33μF/63V | |
| C938L/R | | | |
| C940, C941 | 3479247041 | Elect 47μF/25V | |
| C1001 | 3549472407 | Ceramic 0.0047μF/400VAC | C1 |
| **● COIL** | | | |
| L901L/R | 2648001010 | Coil Inductor 0.5μF H | A1, A4 |
| **● RELAY** | | | |
| RLY1 | 5528001250 | Power VS-12MBNR-UL2 | C1 |
| RLY2 | 5528001320 | SPKR VB-24MBU 510UL | A2 |
| **● FUSE** | | | |
| FS101 | 5508213031 | 5A 250V | C2 |
| FS102 | 5508211331 | 0.3A 250V | C2 |
| FS103 | 5508212031 | 1A 250V | D3 |
| **● CHASSIS** | | | |
| | 2828043801 | Power Transformer | |
| | 2828043901 | Stand by Transformer | |
| | 2608207290 | AM Ant Loop | |

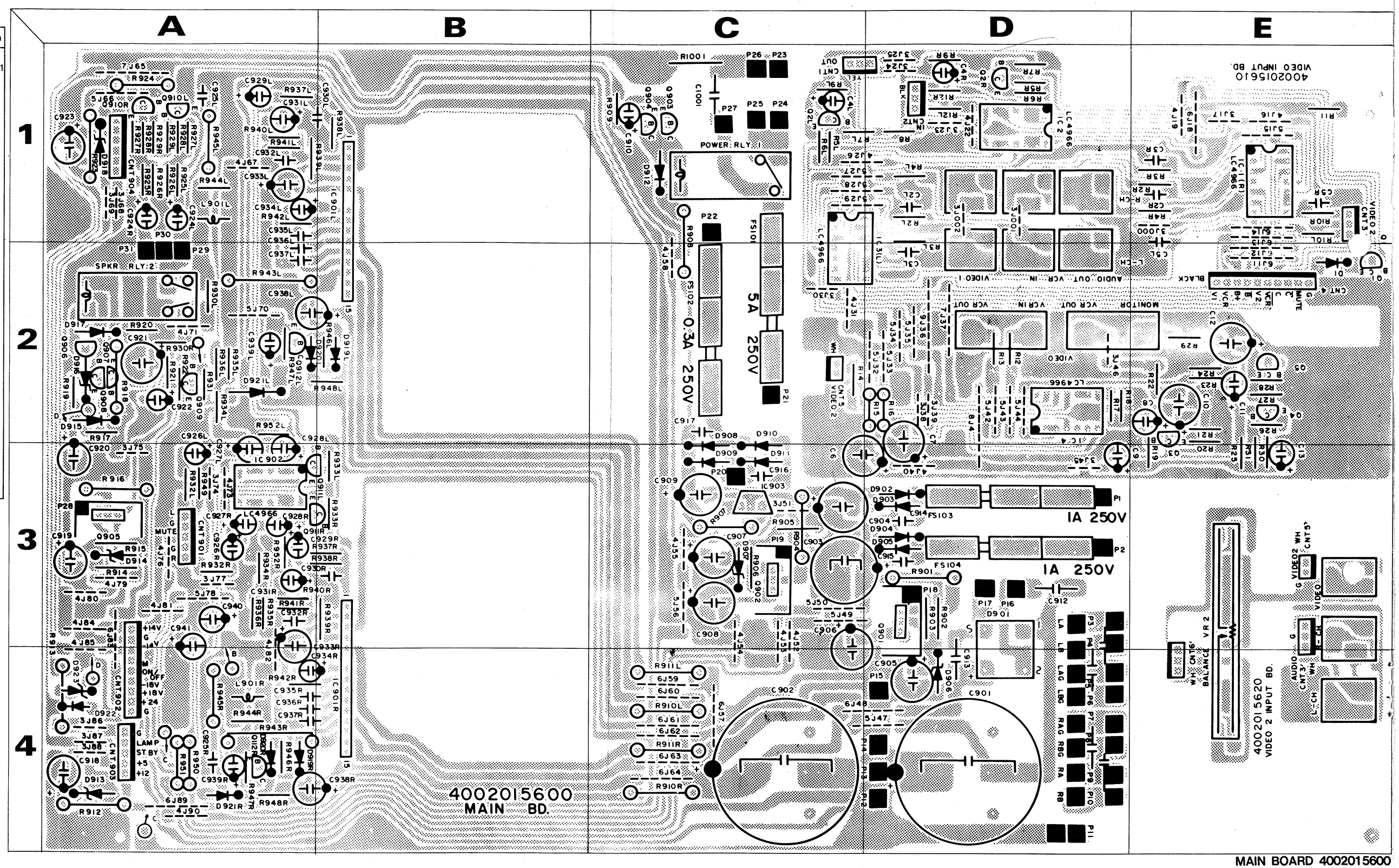
## VIDEO INPUT 4002015610

| Ref. No. | Part No. | Description | Position |
|---|---|---|---|
| **● IC** | | | |
| IC1, IC2, IC3 IC | 2138017108 | IC LC4966 | C1, D2, E1 |
| **● TRANSISTOR** | | | |
| Q3, Q4, Q5 | 2208606104 | KTC 1815Y | E2 |
| Q2L/R | | 2SD 1302S | D1 |
| Q1 | 2208206105 | KTA 1015Y | E1 |
| **● DIODE** | | | |
| D1 | 2058306101 | IN 4148 | E2 |
| **● RESISTOR** | | | |
| R2L/R, R3L/R | 3069102970 | C.F 1K ohm 1/8 W | |
| R10L/R | | | |
| R20, R21 | | | |
| R4L/R | 3069472970 | C.F 7K ohm 1/8 W | |
| R5L/R | 3069651970 | C.F 650 ohm 1/8 W | |
| R12L/R, R27 | | | |
| R28 | | | |
| R6L/R, R8 | 3069104970 | C.F 100K ohm 1/8 W | |
| R9L/R, R11, | | | |
| R18, R24 | | | |
| R25 | | | |
| R7L/R | 3069332970 | C.F 3.3K ohm 1/8 W | |
| R12, R13 | 3069680970 | C.F 68 ohm 1/8 W | |
| R14, R22 | | | |
| R29 | | | |
| R17, R23 | 3069221970 | C.F 220 ohm 1/8 W | |
| R19, R30 | 3069103970 | C.F 10K ohm 1/8 W | |
| R31 | | | |
| R15, R16 | 3069100270 | C.F 10 ohm 1/4 W | |
| **● CAPACITOR** | | | |
| C2L/R | 3579101130 | Ceramic 100pF/50V | |
| C3L/R | | | |
| C5L/R | | | |
| C4L/R | 3479222971 | Elect 2.2μF/50V | |
| C6, C7 | 3479210141 | Elect 100μF/25V | |
| C8, C11 | 3479233031 | Elect 33μF/10V | |
| C9, C13 | 3479247031 | Elect 47μF/10V | |
| C10, C12 | 3479233121 | Elect 330μF/10V | |



## VIDEO INPUT 4002015610

| Ref. No. | Part No. | Description | Position |
|---|---|---|---|
| **● IC** | | | |
| IC1, IC2, IC3 IC | 2138017108 | IC LC4966 | C1, D2, E1 |
| **● TRANSISTOR** | | | |
| Q3, Q4, Q5 | 2208606104 | KTC 1815Y | E2 |
| Q2L/R | | 2SD 1302S | D1 |
| Q1 | 2208206105 | KTA 1015Y | E1 |
| **● DIODE** | | | |
| D1 | 2058306101 | IN 4148 | E2 |
| **● RESISTOR** | | | |
| R2L/R, R3L/R3L/R R10L/R R20, R21 | 3069102970 | C.F 1K ohm ⅛ W | |
| R4L/R | 3069472970 | 7K ohm ⅛ W | |
| R5L/R | 3069651970 | 0 ohm ⅛ W | |
| R12L/R, R27 R28 | | | |
| R6L/R, R8 R9L/R, R11, R18, R24 R25 | 3069104970 | C.F 100K ohm ⅛ W | |
| R7L/R | 3069332970 | C.F 3.3K ohm ⅛ W | |
| R12, R13 R14, R22 R29 | 3069680970 | C.F 68 ohm ⅛ W | |
| R17, R23 | 3069221970 | C.F 220 ohm ⅛ W | |
| R19, R30 R31 | 3069103970 | C.F 10K ohm ⅛ W | |
| R15, R16 | 3069100270 | C.F 10 ohm ¼ W | |
| **● CAPACITOR** | | | |
| C2L/R C3L/R C5L/R | 3579101130 | Ceramic 100pF/50V | |
| C4L/R | 3479222971 | Elect 2.2μF/50V | |
| C6, C7 | 3479210141 | Elect 100μF/25V | |
| C8, C11 | 3479233031 | Elect 33μF/10V | |
| C9, C13 | 3479247031 | Elect 47μF/10V | |
| C10, C12 | 3479233121 | Elect 330μF/10V | |




MAIN BOARD 4002015600

# *Parts List & Top View of P.C Boards*

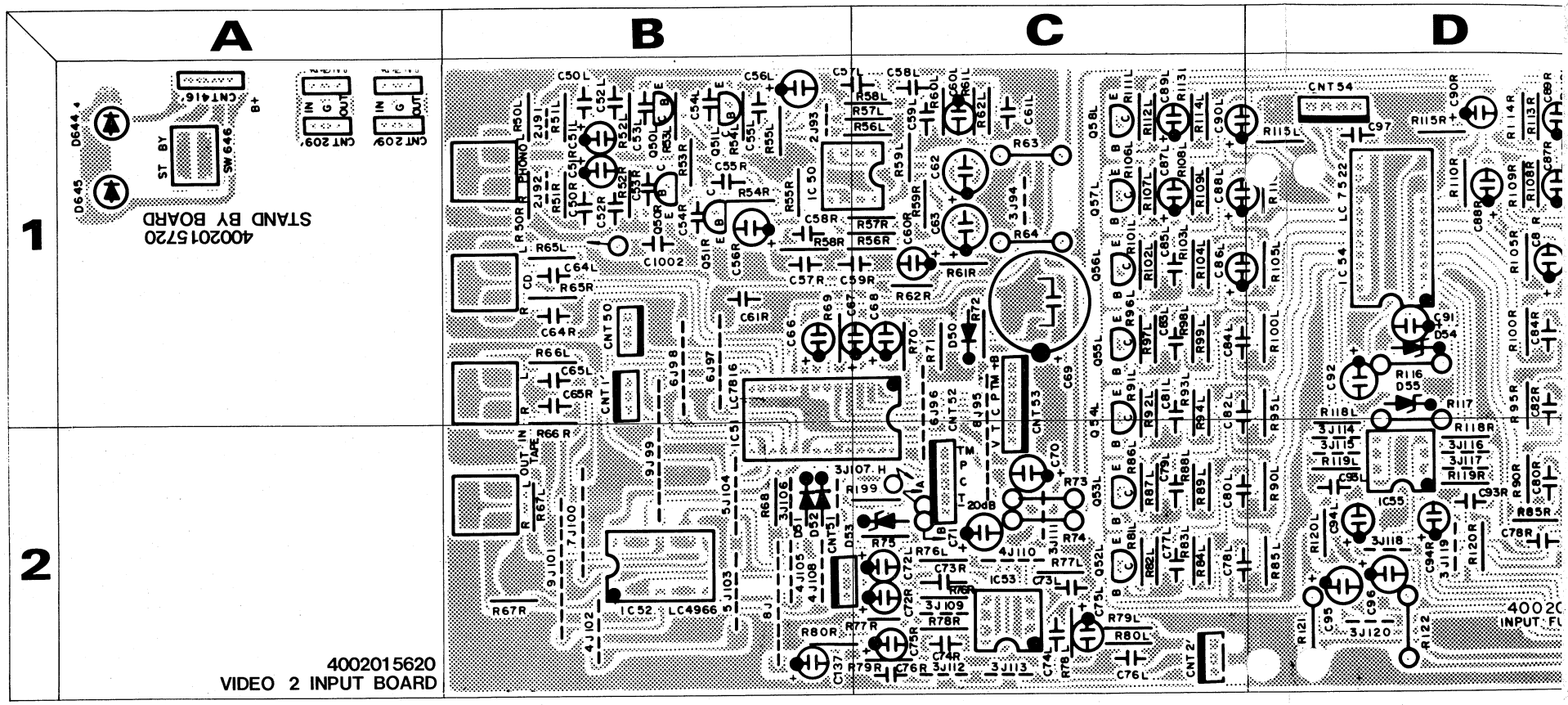
## INPUT BOARD 4002015710

| Ref. No. | Part No. | Description | Position |
|---|---|---|---|
| **●IC** | | | |
| IC51 | 2138017107 | IC LC 7816 | B1 |
| IC52, IC57 | 2138017108 | IC LC 4966 | B2, E2 |
| IC53, IC55 | 2168220103 | IC NJM 4560D | |
| IC56 | | | |
| IC50 | 2168220104 | IC NJM 4558DD | B1 |
| IC54 | 2168017122 | IC LC 7522 | D1 |
| **● TRANSISTOR** | | | |
| Q50L/R | 2008609107 | MPS 9633C | B1 |
| Q51L/R | | | |
| Q52L/R | 2208606104 | KTC 1815Y | |
| Q53L/R | | | |
| Q54L/R | | | |
| Q55L/R | | | |
| Q56L/R | | | |
| Q57L/R | | | |
| Q58L/R | | | |
| Q59L/R | | | |
| Q60 | 2208206105 | KTA 1015Y | E2 |
| **● DIODE** | | | |
| D50, D51 | 2058306101 | IN 4148 | |
| D52, D56 | | | |
| D53 | 2058513105 | RD 6.2EB2 | C2 |
| D54, D55 | 2058513106 | RD 7.5EB1 | D1 |
| **●RESISTOR** | | | |
| R50L/R | 3069104970 | C.F 100K ohm ⅛ W | |
| R52L/R | | | |
| R55L/R | | | |
| R77L/R | | | |
| R80L/R | | | |
| R127L/R | | | |
| R132, R133 | | | |
| R51L/R | 3069470970 | C.F 47 ohm ⅛ W | |
| R53L/R | 3069753970 | C.F 75K ohm ⅛ W | |
| R54L/R | 3069391970 | C.F 390 ohm ⅛ W | |
| R55L/R | 3069101970 | C.F 100 ohm ⅛ W | |
| R56L/R | 3069103970 | C.F 10K ohm ⅛ W | |
| R57L/R, R72 | | | |
| R58L/R, R71 | 3069472970 | C.F 4.7K ohm ⅛ W | |
| R78L/R | | | |
| R126L/R | | | |
| R59L/R | 3069473970 | C.F 47K ohm ⅛ W | |
| R60L/R | 3069563970 | C.F 56K ohm ⅛ W | |
| R61L/R, R69 | | | |
| R70, R82L/R | 3069224970 | C.F 220K ohm ⅛ W | |
| R87L/R | | | |
| R92L/R | | | |
| R97L/R | | | |
| R102L/R | | | |
| R107L/R | | | |
| R112L/R | | | |
| R118L/R | | | |
| R124L/R | | | |
| R62L/R | 3069561970 | C.F 560 ohm ⅛ W | |
| R76L/R | | | |
| R132L/R | | | |
| R65L/R | 3069222970 | C.F 2.2K ohm ⅛ W | |
| R66L/R | | | |
| R67L/R | 3069222970 | C.F 2.2K ohm ⅛ W | |
| R68 | 3069272970 | C.F 2.7K ohm ⅛ W | |
| R79L/R | 3069102970 | C.F 1K ohm ⅛ W | |
| R128L/R | | | |
| R75 | 3069273970 | C.F 27K ohm ⅛ W | |
| R81L/R | 3069331970 | C.F 330 ohm ⅛ W | |
| R83L/R | | | |
| R86L/R | | | |
| R88L/R | | | |
| R91L/R | | | |
| R93L/R | | | |
| R96L/R | | | |
| R98L/R | | | |
| R101L/R | | | |
| R103L/R | | | |
| R106L/R | | | |
| R108L/R | | | |
| R111L/R | | | |

| Ref. No. | Part No. | Description | Position |
|---|---|---|---|
| R113L/R | | | |
| R84L/R | 3069123970 | C.F 12K ohm ⅛ W | |
| R89L/R | | | |
| R94L/R | | | |
| R99L/R | | | |
| R104L/R | | | |
| R109L/R | | | |
| R114L/R | | | |
| R119L/R | | | |
| R120L/R | | | |
| R85L/R | 3069824970 | C.F 820K ohm ⅛ W | |
| R90L/R | | | |
| R95L/R | | | |
| R100L/R | | | |
| R105L/R | | | |
| R110L/R | | | |
| R115L/R | | | |
| R129L/R | 3069181970 | C.F 180 ohm ⅛ W | |
| R130L/R | 3069332970 | C.F 3.3K ohm ⅛ W | |
| R125L/R | 3069821970 | C.F 820 ohm ⅛ W | |
| R63, R64 | 3069221270 | C.F 220 ohm ¼ W | |
| R73, R74 | 3069220270 | C.F 22 ohm ¼ W | |
| R134, R135 | | | |
| R116, R117 | 3069561270 | C.F 560 ohm ¼ W | |
| R121, R122 | 3069470270 | C.F 47ohm ¼ W | |
| **●CAPACITOR** | | | |
| C50L/R | 3579101130 | Ceramic 100pF/50V | |
| R52L/R | | | |
| R53L/R | | | |
| R54L/R | | | |
| R73L/R | | | |
| R74L/R | | | |
| R98L/R | | | |
| R100L/R | | | |
| C55L/R | 3579681130 | Ceramic 680pF/50V | |
| C64L/R | 3579331130 | Ceramic 330pF/50V | |
| C65L/R | | | |
| C77L/R | 3579471130 | Ceramic 470pF/50V | |
| C93L/R | 3579470130 | Ceramic 47pF/50V | |
| C57L/R | 3679153120 | Mylar 0.015μF/100V | |
| C58L/R | 3679152120 | Mylar 0.0015μF/100V | |
| C61L/R | | | |
| C76L/R | | | |
| C59L/R | 3679563120 | Mylar 0.056μF/100V | |
| C78L/R | 3679332120 | Mylar 0.0033μF/100V | |
| C79L/R | 3679122120 | Mylar 0.0012μF/100V | |
| C80L/R | 3679822120 | Mylar 0.0082μF/100V | |
| C81L/R | 3679272120 | Mylar 0.0027μF/100V | |
| C82L/R | 3679223120 | Mylar 0.022μF/100V | |
| C83L/R | 3679103120 | Mylar 0.01μF/100V | |
| C83L/R | 3679103120 | Mylar 0.01μF/100V | |
| C84L/R | 3679473120 | Mylar 0.047μF/100V | |
| C84L/R | 3679473120 | Mylar 0.047μF/100V | |
| C102L/R | 3679102120 | Mylar 0.001μF/100V | |
| C56L/R | 3479210121 | Elect 100μF/10V | |
| C103L/R | | | |
| C60L/R | 3479210971 | Elect 1μF/50V | |
| C90L/R | | | |
| C62, C63 | 3479210141 | Elect 100μF/25V | |
| C66, C70 | 3479247041 | Elect 47μF/25V | |
| C71, C95, C96 | | | |
| C105, C106 | | | |
| C67, C86L/R | 3479210871 | Elect 0.1μF/50V | |
| C87L/R | | | |
| C68, C75L/R | 3479222971 | Elect 2.2μF/50V | |
| C94L/R | | | |
| C99L/R | | | |
| C101L/R | | | |
| C104L/R | | | |
| C69 | 3479210241 | Elect 1000μF/25V | |
| C88L/R | 3479222871 | Elect 0.22μF/50V | |
| C89L/R | 3479215871 | Elect 0.15μF/50V | |
| C91, C92 | 3479217121 | Elect 47μF/10V 47121 | |

## STAND BY BOARD 4002015720

| Ref. No. | Part No. | Description | Position |
|---|---|---|---|
| **●IC** | | | |
| IC | | IC μPC 7815 | A1 |
| LED D644 | 2308221108 | LED SLR-54DC(Amber) | A1 |

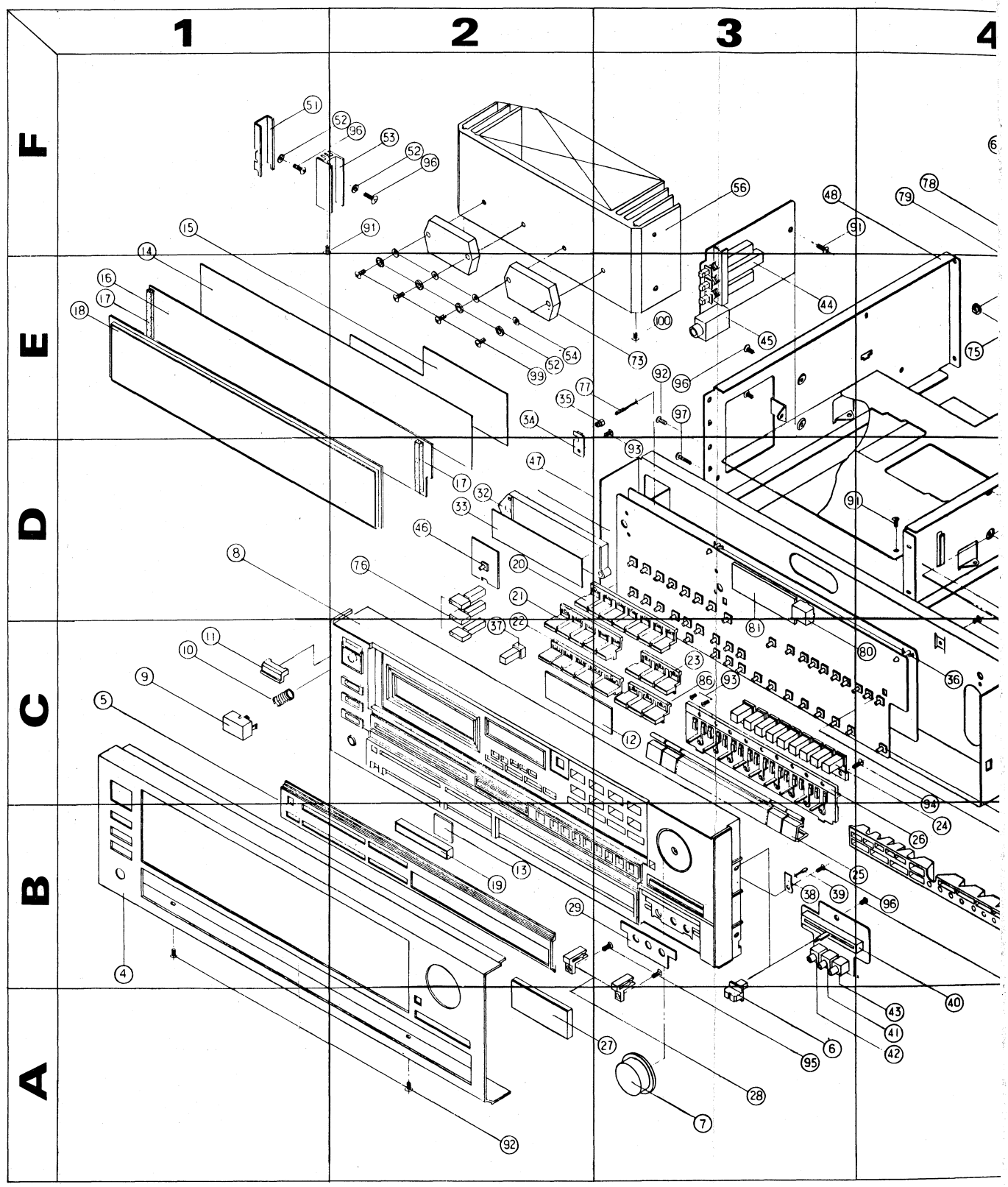


| | Position |
|---|---|
| | |
| | |
| | |

# Parts List & Exploded View of Cabinet & Chassis

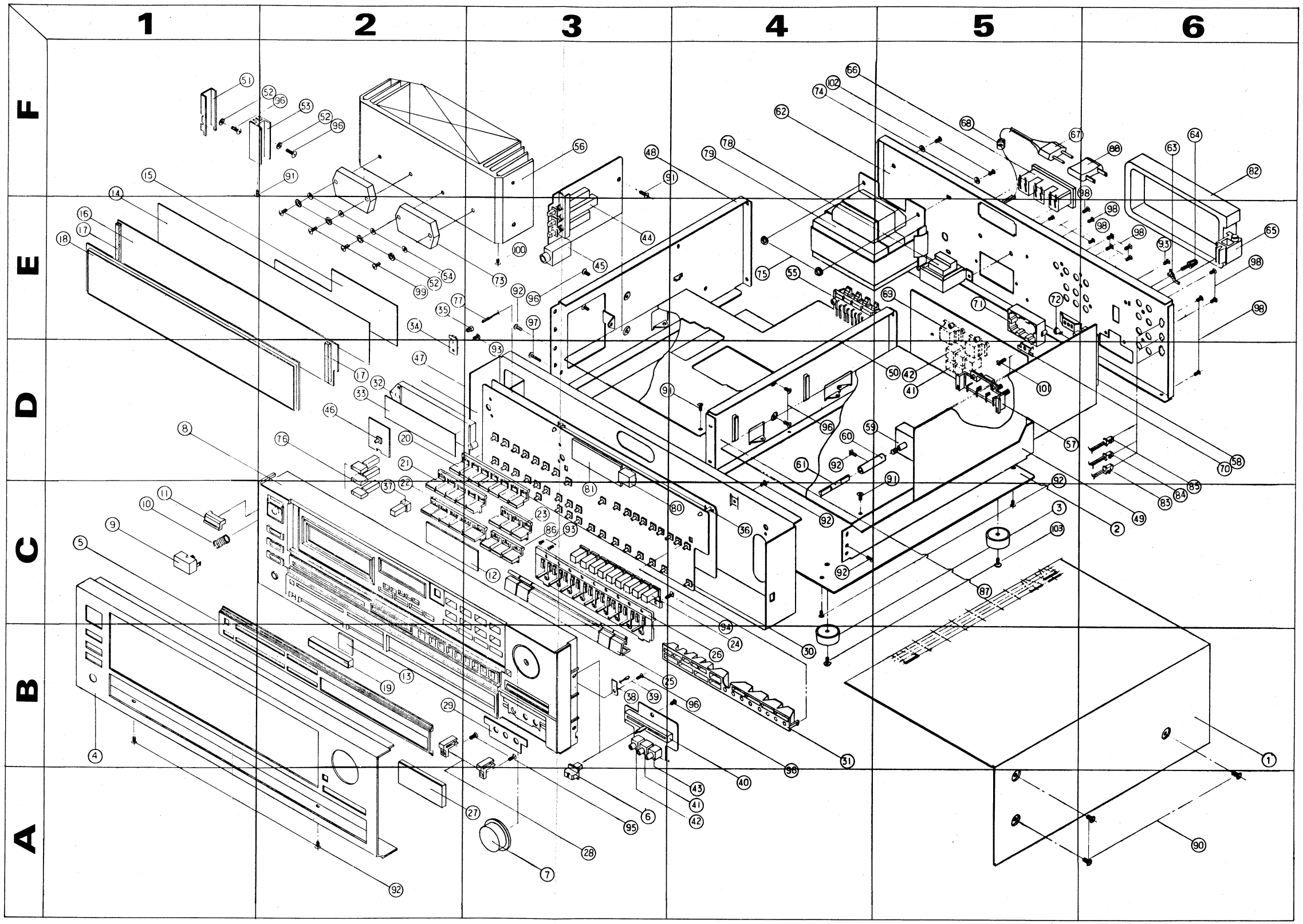
| NO. | PARTS NO. | DESCRIPTION | Q'TY | POSISTON | REMARKS |
|---|---|---|---|---|---|
| 1 | 046122102211 | CABINET TOP | 1 | B6 | |
| 2 | 6122410310 | COVER BOTTOM | 1 | C6 | |
| 3 | 6335000610 | FOOT RUBBER | 4 | C5 | |
| 4 | 048602013811 | PANEL FRONT | 1 | B1 | |
| 5 | 048623002611 | DECORATION | 1 | C1 | |
| 6 | 048543006211 | KNOB SLIDE | 1 | A3 | |
| 7 | 048643002211 | KNOB VOLUME | 1 | A3 | |
| 8 | 048521003011 | BODY FRONT | 1 | D1 | |
| 9 | 8545027210 | BOTTON PUSH(POWER) | 1 | C1 | |
| 10 | 6555000740 | SPRING COIL | 1 | C1 | |
| 11 | 8555013810 | INDICATOR STAND BY | 1 | C1 | |
| 12 | 8535005810 | FILTER DISPLAY | 1 | C3 | |
| 13 | 8535011410 | FILTER SENSOR | 1 | B2 | |
| 14 | 048533003411 | INTAY | 1 | F1 | |
| 15 | 8535011510 | DIFFUSER | 1 | F1 | |
| 16 | 048573005511 | ILLUMINATION PLATE | 1 | E1 | |
| 17 | 6715011410 | COVER SIDE | 2 | E1 | |
| 18 | 8555013710 | WINDOW DIAL | 1 | E1 | |
| 19 | 048545036411 | BUTTON-SEA-SAW | 1 | B2 | |
| 20 | 8543008010 | BUTTON TACT(6KEY) | 1 | D2 | |
| 21 | 8543008110 | BUTTON TACT(5KEY) | 1 | D2 | |
| 22 | 8543007910 | BUTTON TACT(5KEY) | 1 | C2 | |
| 23 | 8543008210 | BUTTON TACT(3KEY) | 1 | C3 | |
| 24 | 048543008311 | BUTTON STATION | 1 | B4 | |
| 25 | 048645009011 | BUTTON FUNCTION | 9 | B3, B4 | |
| 26 | 6053001610 | BASE FUNCTION BUTTON | 1 | B4 | |
| 27 | 048665000311 | DOOR JACK | 1 | A3 | |
| 28 | 6305002910 | HINGE DOOR | 2 | A3 | |
| 29 | 048635006411 | DECORATION PLATE | 1 | B2 | |
| 30 | 4658002610 | SW TACT | 45 | B4 | |
| 31 | 8553004910 | REFLECTOR LED | 1 | B4 | |
| 32 | 8553005010 | REFLECTOR LCD | 1 | D2 | |
| 33 | 048535010311 | FILTER LCD | 1 | D2 | |
| 34 | 6505070310 | BKT LAMP | 2 | E2 | |
| 35 | 6715010410 | HOLDER LAMP | 2 | E2 | |
| 36 | 6528300110 | FASTENER | 4 | C4 | |
| 37 | 8545033710 | BUTTON TACT | 2 | C2 | |
| 38 | 6515008710 | HOLDER LAMP | 1 | B3 | |
| 39 | 2528201420 | LAMP | 1 | B3 | |
| 40 | 3238406810 | SLIDE VR(BAL) | 1 | A4 | |
| 41 | 4438102510 | JACK RCA | 4 | A4 | |
| 42 | 4438102520 | JACK RCA | 4 | A4 | |
| 43 | 4438102530 | JACK RCA | 1 | A4 | |
| 44 | 4628040120 | SPEAKER SW | 1 | E3 | |
| 45 | 4438000810 | JACK PHONE | 1 | E3 | |
| 46 | 4658002020 | SW TACT | 1 | D2 | |
| 47 | 6122211410 | CHASSIS FRONT | 1 | D2 | |
| 48 | 6122612710 | FRAME LEFT | 1 | F3 | |
| 49 | 6122612810 | FRAME RIGHT | 1 | C6 | |
| 50 | 6122612910 | FRAME CENTER | 1 | D5 | |
| 51 | 7505202420 | HEAT SINK REG TR | 3 | F1 | |
| 52 | 8319130011 | WASHER SPRING $\phi$3 | 8 | E2, F2 | |
| 53 | 7505201940 | FEAT SINK REG TR | 0 | F2 | |
| 54 | 8309030011 | WASHER PLAIN $\phi$3 | 4 | E2 | |
| 55 | 4408101360 | TERMINAL PUSH | 1 | E4 | |
| 56 | 7503006810 | HEAT SINK | 1 | F3 | |
| 57 | 4408000410 | TERMINAL SCREW | 1 | D5 | |
| 58 | 4438100410 | JACK R.C.A. | 2 | D6 | |
| 59 | 3228010710 | MOTER VR MOTOR | 1 | D4 | |
| 60 | 7045000110 | COUPLER | 0 | D4 | |
| 61 | 7005004610 | SHAFT CONNECTION | 0 | D4 | |
| 62 | 046102018411 | CHASSIS BACK | 1 | F4 | |
| 63 | 4465100110 | TERMINAL SYS GND | 1 | F6 | |
| 64 | 4465100210 | TERMINAL SCREW | 1 | F6 | |
| 65 | 6518000210 | HOLDER ANT | 1 | E6 | |
| 66 | 4448100810 | AC OUT LET | 1 | F4 | |
| 67 | 4308001410 | CORD AC POWER | 1 | F5 | |
| 68 | 6518000710 | STOPPER CORD | 1 | F5 | |
| 69 | 4438102310 | JACK R.C.A(2P) | 2 | E5 | |
| 70 | 6505070410 | B.K.TP.C.B | 1 | D6 | |
| 71 | 6043002010 | JACK GUIDE | 1 | E5 | |
| 72 | 6705004220 | SPEACER | 1 | E5 | |
| 73 | 2178317121 | I.C POWER | 2 | F3 | |
| 74 | 8305000510 | WASHER VINYL | 4 | E4 | |
| 75 | 82099540011 | NUT FLANGE | 4 | D4 | |
| 76 | 048545020412 | BUTTON PUSH | 3 | E2 | |
| 77 | 2528203910 | LAMP | 2 | F2 | |
| 78 | 2828043901 | TRANSFORMER | 1 | F4 | |
| 79 | 2828043801 | TRANSFORMER | 1 | F4 | |
| 80 | 2138000114 | REMOTE SENSOR | 1 | C4 | |
| 81 | 2328130913 | FL DISPLAY | 1 | C3 | |

| NO. | PARTS NO. | DESCRIPTION | Q'TY | POSISTION | REMARKS |
|---|---|---|---|---|---|
| 82 | 2608207290 | ANT LOOP | | | |
| 83 | 4428511340 | CONNECTOR(3P) | 1 | C6 | |
| 84 | 4428511240 | CONNECTOR(2P) | 1 | C6 | |
| 85 | 4428511240 | CONNECTOR(2P) | 1 | C6 | |
| 86 | 8543008210 | BUTTON TACT(3KEY) | 1 | C3 | |
| 87 | 6122612910 | FRAME CENTER | 1 | C5 | |
| 88 | 4428300310 | AC ADAPTER | 1 | F6 | DOM ONLY |
| 89 | | | | | |
| 90 | 8159230083 | SCREW #2 WPTC 3×8B | 6 | A6 | |
| 91 | 8159230081 | SCREW #2 WPTC 3×8 Y | 15 | D5 | |
| 92 | 8109230061 | SCREW #2 BTC 3×6 Y | 18 | D5 | |
| 93 | 8119226081 | SCREW #2 PTC 2.6×8 Y | 20 | D3 | |
| 94 | 8119226121 | SCREW #2 PTC 2.6×12Y | 4 | B4 | |
| 95 | 8129430061 | SCREW FS 3×6 Y | 2 | A3 | |
| 96 | 8109230081 | SCREW #2 BTC 3×8 Y | 14 | E3 | |
| 97 | 8109230161 | SCREW #2 BTC 3×16 Y | 1 | E3 | |
| 98 | 8119230083 | SCREW #2 PTC 3×8 Y B | 17 | E6 | |
| 99 | 8059130161 | SCREW HEX M3×16 Y | 4 | E2 | |
| 100 | 8159230101 | SCREW #2 PTC 3×10 Y | 2 | E3 | |
| 101 | 8119230163 | SCREW #2 PTC 3×16 B | 1 | D5 | |
| 102 | 8159440083 | SCREW WSAM 4×8 B | 4 | F4 | |
| 103 | 8109230121 | SCREW #2 BTC 3×12 Y | 4 | C5 | |



# w of Cabinet & Chassis

| NO. | PARTS NO. | DESCRIPTION | Q'TY | POSISTION | REMARKS |
|---|---|---|---|---|---|
| 82 | 2608207290 | ANT LOOP | | | |
| 83 | 4428511340 | CONNECTOR(3P) | 1 | C6 | |
| 84 | 4428511240 | CONNECTOR(2P) | 1 | C6 | |
| 85 | 4428511240 | CONNECTOR(2P) | 1 | C6 | |
| 86 | 8543008210 | BUTTON TACT(3KEY) | 1 | C3 | |
| 87 | 6122612910 | FRAME CENTER | 1 | C5 | |
| 88 | 4428300310 | AC ADAPTER | 1 | F6 | DOM ONLY |
| 89 | | | | | |
| 90 | 8159230083 | SCREW #2 WPTC 3×8B | 6 | A6 | |
| 91 | 8159230081 | SCREW #2 WPTC 3×8 Y | 15 | D5 | |
| 92 | 8109230061 | SCREW #2 BTC 3×6 Y | 18 | D5 | |
| 93 | 8119226081 | SCREW #2 PTC 2.6×8 Y | 20 | D3 | |
| 94 | 8119226121 | SCREW #2 PTC 2.6×12Y | 4 | B4 | |
| 95 | 8129430061 | SCREW FS 3×6 Y | 2 | A3 | |
| 96 | 8109230081 | SCREW #2 BTC 3×8 Y | 14 | E3 | |
| 97 | 8109230161 | SCREW #2 BTC 3×16 Y | 1 | E3 | |
| 98 | 8119230083 | SCREW #2 PTC 3×8 Y B | 17 | E6 | |
| 99 | 8059130161 | SCREW HEX M3×16 Y | 4 | E2 | |
| 100 | 8159230101 | SC[illegible] #[illegible] PTC 3×10 Y | 2 | E3 | |
| 101 | 8119230163 | SC[illegible] #[illegible] 3×16 B | 1 | D5 | |
| 102 | 8159440083 | SCREW WSAM 4×8 B | 4 | F4 | |
| 103 | 8109230121 | SCREW #2 BTC 3×12 Y | 4 | C5 | |



# *Parts List & Top View of P.C. Boards*

## FRONT BOARD A 4002015810

| Ref No. | Part No. | Description | Position |
|---|---|---|---|
| **● IC** | | | |
| IC601 | 2168017123 | IC LC 7560 | A1 |
| IC602 | 2168017104 | IC LB 1433 | B3 |
| IC603,IC604 | 2168007123 | IC TC 9130 | B3,D3 |
| IC605 | 2138000114 | BX1317 | C1 |
| **● LED** | | | |
| D612 | 2308220109 | SLR-54μRC3(RD) | D1 |
| D613,D614 | 2308220306 | SLR-54GC(GN) | C1,D1 |
| D615 | | | |
| D616,D617 | 2308221108 | SLR-54DC(amber) | C1,D1 |
| D618,D619 | | | |
| D621,D622 | 2308220507 | SLV-56DC3(amber) | C2,D2 |
| D623,D640 | | | |
| D641,D632 | | | |
| D633 | | | |
| D651 | 2308220110 | SLB-61RR3(RD) | |
| D639 | 2308220326 | SLV-56MC3(GN) | B2 |
| D624,D625 | 2308221105 | SLR-34DC(amber) | C2,C2 |
| D626,D627 | | | |
| D628,D629 | | | |
| D630,D631 | | | |
| D642 | | | |
| D634,D635 | 2308220127 | SLR-34μRC-3((RD) | B2,C2 |
| D636,D637 | | | |
| D638 | | | |
| LCD DISPLAY | 2338009905 | LCD S-004 | A2,B2 |
| FL DISPLAY | 2328130913 | FL 798E (DYNAMIC) | B2,C2 |
| **● DIODE** | | | |
| D601,D602 | 2058306101 | IN4148 | |
| D603,D604 | | | |
| D605,D606 | | | |
| D607,D608 | | | |
| D609,D610 | | | |
| D643 | | | |
| D611,D612 | 2058513122 | Zener RD 11EB3 | D1 |
| **● TRANSISTOR** | | | |
| Q601,Q603 | 2208606104 | KTC 1815Y | |
| Q604,Q605 | | | |
| Q607,Q609 | | | |
| Q610,Q611 | | | |
| Q612,Q614 | | | |
| Q616,Q618 | | | |
| Q602,Q603 | 2208206105 | KTA 1015Y | |
| Q606,Q608 | | | |
| Q613,Q615 | | | |
| Q617 | | | |
| **● RESISTOR** | | | |
| R601 | 3069753970 | C.F 75K ohm 1/6W | A1 |
| R602,R603 | 3069103970 | C.F 10K ohm 1/6W | |
| R604,R605 | | | |
| R606,R608 | | | |
| R610,R611 | | | |
| R612,R613 | | | |
| R614,R618 | | | |
| R620,R626 | | | |
| R629,R630 | | | |
| R631,R632 | | | |
| R633,R634 | | | |
| R635,R636 | | | |
| R637,R638 | | | |
| R639,R640 | | | |
| R641,R642 | | | |
| R652,R654 | | | |
| R659 | | | |
| R607,R616 | 3069223970 | C.F 22K ohm 1/6W | |
| R609,R627 | 3069241970 | C.F 240 ohm 1/6W | |
| R647,R656 | | | |
| R617 | 3069220970 | C.F 22 ohm 1/6W | |
| R619,R657 | 3069473970 | C.F 47K ohm 1/6W | |
| R658 | | | |
| R621,R622 | 3069104970 | C.F 100K ohm 1/6W | |
| R623,R643 | | | |
| R644,R645 | | | |
| R646 | | | |
| R624,R648 | 3069561970 | C.F 560 m 1/6W | |

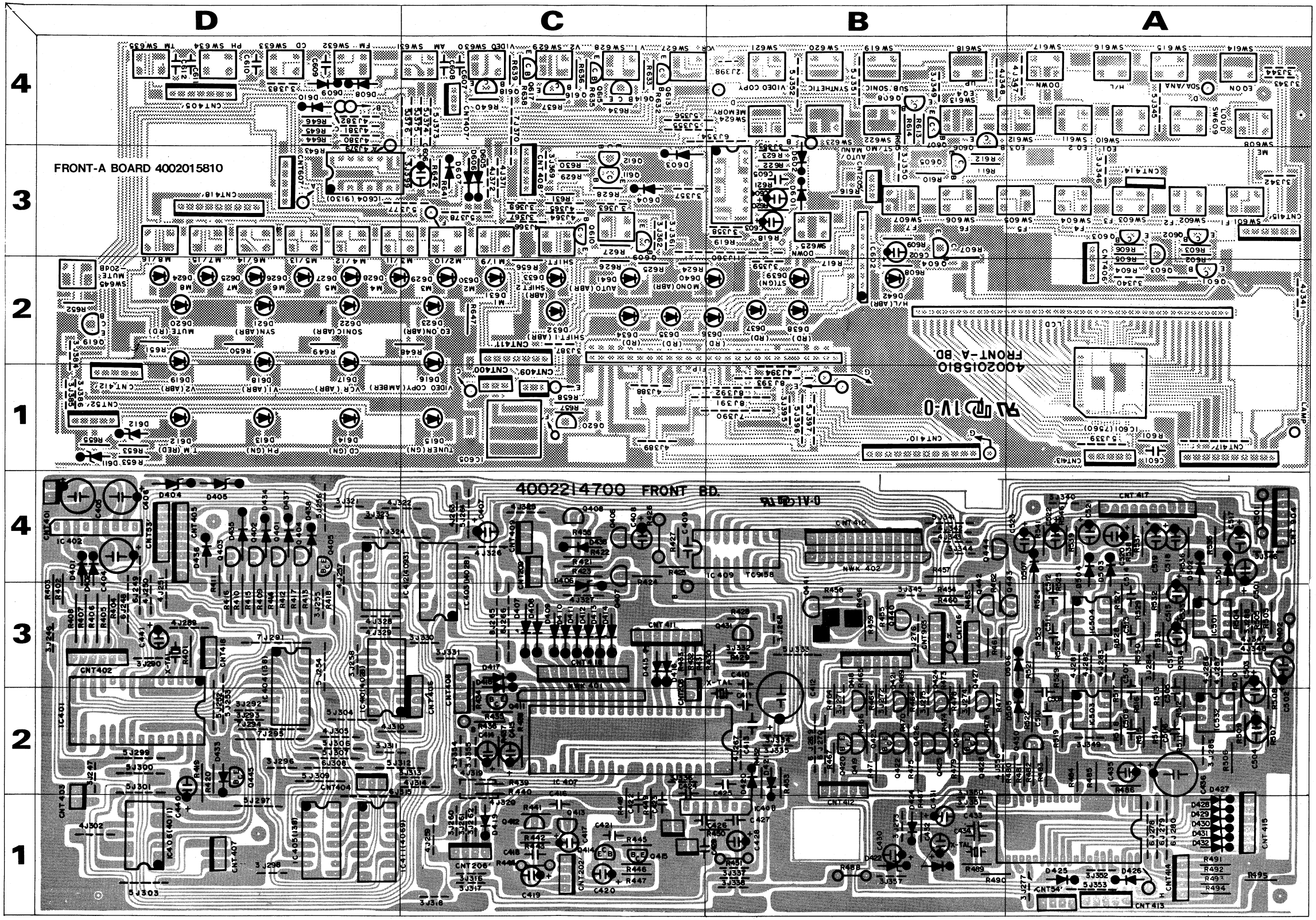
| Ref No. | Part No. | Description | Position |
|---|---|---|---|
| R649,R650 | | | |
| R625 | 3069392970 | C.F 3.9K ohm 1/6W | |
| R628 | 3069222970 | C.F 2.2K ohm 1/6W | |
| R651 | 3069271970 | C.F 270 ohm 1/6W | |
| R653 | 3069821970 | C.F 820 ohm 1/6W | |
| R655 | 3069132970 | C.F 1.3K ohm 1/6W | |
| **● CAPACITOR** | | | |
| C601 | 3679332120 | MYLAR 0.0033μF/100V | |
| C602 | 3479222031 | ELECT 22μF/16V | |
| C603,C604 | 3479247971 | ELECT 4.7μF/50V | |
| C606 | 3479222971 | ELECT 2.2μF/50V | |
| C605 | 3579223530 | CERAMIC 0.022μF/50V | |
| C607,C608 | 3579103530 | CERAMIC 0.01μF/50V | |
| C609,C610 | | | |
| C611,C612 | | | |

## FRONT BOARD B 4002015800

| Ref No. | Part No. | Description | Position |
|---|---|---|---|
| **● IC** | | | |
| IC 401 | 2130309100 | IC DWP 100(MCb805P2) | D2 |
| IC 402 | 2168022107 | IC BA 6208 | D4 |
| IC403, IC404 | 2138013115 | IC μPD 4028 | D1, D2 |
| IC 405 | | | |
| IC406 | 2138009114 | IC μPD 4011 | D1 |
| IC407 | 2138007108 | IC TC 9147AP | C2 |
| IC408 | 2108007102 | IC TD 6104P | B1 |
| IC409 | 2138007110 | IC TC 9158 | C4 |
| IC410 | 2138009100 | IC MCI 4027 | B4 |
| IC411 | 2138011110 | IC MCI 4093 | B4 |
| IC412 | 2168017121 | IC LC7060 | A1 |
| IC501,IC502 IC503,IC504 | 2168220103 | IC NJM 4560D | A2, A3 |
| **● TRANSISTOR** | | | |
| Q401,Q403 | 2208206105 | TR KTA1015Y | |
| Q405,Q407 | | | |
| Q409,Q418 | | | |
| Q421,Q424 | | | |
| Q427 | | | |
| Q402,Q404 | 2208606104 | TR KTC1815Y | |
| Q404,Q408 | | | |
| Q410,Q411 | | | |
| Q419,Q420 | | | |
| Q422,Q423 | | | |
| Q425,Q426 | | | |
| Q428,Q429 | | | |
| Q417,Q430 | | | |
| Q431 | | | |
| Q412,Q415 | 2208606108 | KTC 2240BL | C1 |
| **● FET** | | | |
| Q413,Q414 | 2018211100 | 2SK 168D | C1 |
| **● FILTER** | | | |
| X-TAL | 3908101030 | X-TAL 7.2MHz | B2 |
| X-TAL | | X-TAL 4MHz | D3 |
| CERAMIC RESONATOR | | RESONATOR CSB400P | B1 |
| **● DIODE** | | | |
| D401,D402 | 2058306101 | IN4148 | |
| D403,D407 | | | |
| D408,D409 | | | |
| D410,D411 | | | |
| D412,D413 | | | |
| D414,D415 | | | |
| D416,D417 | | | |
| D418,D419 | | | |
| D420,D421 | | | |
| D423,D424 | | | |
| D425,D426 | | | |
| D427,D428 | | | |
| D429,D430 | | | |
| D,431,D432 | | | |
| D433,D434 | | | |

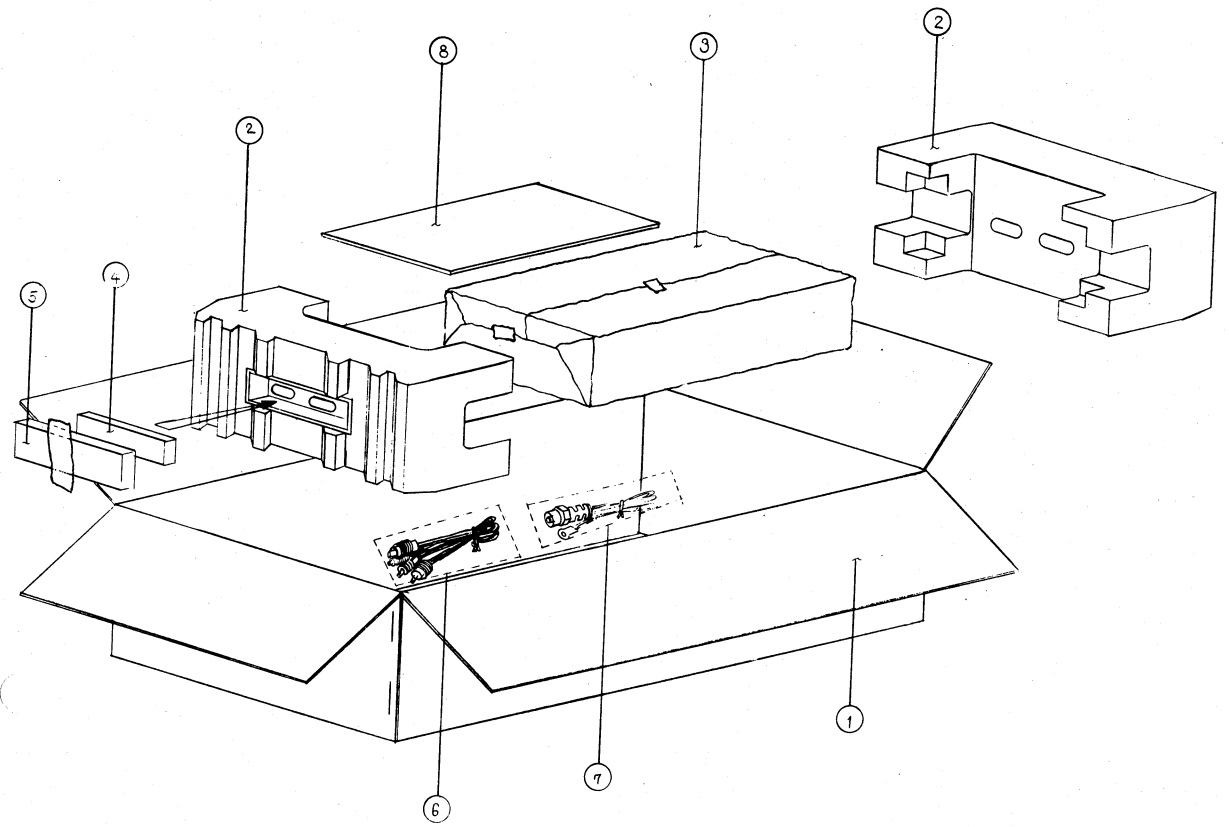
| Ref No. | Part No. | Description | Position |
|---|---|---|---|
| D501,D502 | | | |
| D503,D504 | | | |
| D505,D506 | | | |
| D507, D404,D405 | 2058513100 | ZENER RD 3.3EB1 | D4 |
| D406 | | | |
| D422 | 2058513102 | ZENER RD 4.3EB3 | B1 |
| **● RESISTOR** | | | |
| R401,R402 | 3069103970 | C.F 10K ohm 1/6W | |
| R403,R404 | | | |
| R405,R406 | | | |
| R407,R408 | | | |
| R409,R410 | | | |
| R411,R412 | | | |
| R413,R414 | | | |
| R415,R416 | | | |
| R417,R428 | | | |
| R434,R442 | | | |
| R446,R453 | | | |
| R455,R456 | | | |
| R457,R465 | | | |
| R466,R469 | | | |
| R470,R473 | | | |
| R474,R477 | | | |
| R478,R503 | | | |
| R418,R419 | 3069104970 | C.F 100K ohm 1/6W | |
| R420,R421 | | | |
| R422,R423 | | | |
| R424,R425 | | | |
| R439,R440 | | | |
| R450,R452 | | | |
| R504 | | | |
| R427,R462 | 3069223970 | C.F 22K ohm 1/6W | |
| R505,R513 | | | |
| R429,R430 | 3069512970 | C.F 5.1K ohm 1/6W | |
| R431,R435 | | | |
| R436 | | | |
| R432,R433 | 3069123970 | C.F 12K ohm 1/6W | |
| R437,R487 | 3069333970 | C.F 33K ohm 1/6W | |
| R438,R454 | 3069473970 | C.F 47K ohm 1/6W | |
| R458,R459 | | | |
| R464,R468 | | | |
| R472,R476 | | | |
| R484,R485 | | | |
| R491,R492 | | | |
| R493,R494 | | | |
| R510 | | | |
| R441,R445 | 3069820970 | C.F 82 ohm 1/6W | |
| R443 | 3069332970 | C.F 3.3K ohm 1/6W | |
| R447,R448 | 3069102970 | C.F 1K ohm 1/6W | |
| R507,R524 | | | |
| R449 | 3069331970 | C.F 330 ohm 1/6W | |
| R460 | 3069100970 | C.F 10 ohm 1/6W | |
| R463 | 3069391970 | C.F 390 ohm 1/6W | |
| R467,R471 | 3069621970 | C.F 620 ohm 1/6W | |
| R475,R479 | | | |
| R506 | | | |
| R480,R481 | 3069222970 | C.F 2.2K ohm 1/6W | |
| R482,R483 | | | |
| R490,R535 | | | |
| R536,R537 | | | |
| R538,R539 | | | |
| R540,R541 | | | |
| R486,R512 | 3069563970 | C.F 56K ohm 1/6W | |
| R520 | | | |
| R489 | 3069105970 | C.F 1M ohm 1/6W | |
| R495 | 3069101970 | C.F 100 ohm 1/6W | |
| R508,R523 | 3069183970 | C.F 18K ohm 1/6W | |
| R509,R511 | 3069683970 | C.F 68K ohm 1/6W | |
| R517,R518 | | | |
| R519,R526 | | | |
| R527,R528 | | | |
| R533,R534 | | | |
| R514,R532 | 3069132970 | C.F 1.3K ohm 1/6W | |
| R515,R522 | 3069122970 | C.F 1.2K ohm 1/6W | |
| R529 | | | |
| R516,R521 | 3069243970 | C.F 24K ohm 1/6W | |
| R530,R531 | | | |
| R426,R451 | 3069101270 | C.F 100 ohm 1/4W | |
| R501,R502 | | | |

| Ref No. | Part No. | Description | Position |
|---|---|---|---|
| R444,R488 | 3069470270 | C.F 47 ohm 1/4W | |
| **● CAPACITOR** | | | |
| C401,C410 | 3529270210 | Ceramic 27pF/50V(CM) | |
| C411 | | | |
| C402,C413 | 3509473530 | Ceramic 0.047μF/50V | |
| C421 | | | |
| C416 | 3509472130 | Ceramic 0.0047μF/50V | |
| C418,C423 | 3509103530 | Ceramic 0.01μF/50V | |
| C424,C425 | | | |
| C427 | | | |
| C422,C426 | 3509102130 | Ceramic 0.001μF/50V | |
| C429 | 3509150130 | Ceramic 15PF/50V | |
| C433,C434 | 3509101130 | Ceramic 100PF/50V | |
| C409 | 3679222120 | Mylar 0.0022μF/100V | |
| C505,C506 | 3679122120 | Mylar 0.0012μF/100V | |
| C507,C508 | 3679332120 | Mylar 0.0033μF/100V | |
| C509,C510 | 3679822120 | Mylar 0.022μF/100V | |
| C511,C512 | 3679223120 | Mylar 0.033μF/100V | |
| C513,C514 | 3679473120 | Mylar 0.047μF/100V | |
| C403, C415 | 3479210971 | Elect 1μF/10V | |
| C437, C440 | | | |
| C517, C518 | | | |
| C519, C520 | | | |
| C405, C405 | 3409247121 | Elect 470μF/10V | |
| C404, C407 | 3479210131 | Elect 100μF/16V | |
| C408, C428 | 3479247021 | Elect 47μF/10V | |
| C430 | | | |
| C41 C436 | | Elect 1500μF/100V | |
| C414, C431 | 3479222971 | Elect 2.2μF/50V | |
| C417, C503 | 3479233871 | Elect 0.33μF/50V | |
| C504 | | | |
| C419, C501 | 3479247031 | Elect 47μF/16V | |
| C502 | | | |
| C420, C435 | 3479247971 | Elect 4.7μF/50V | |
| C431, C521 | 3479247871 | Elect 0.47μF/50V | |
| C522, C523 | | | |
| C438, C439 | 3479210871 | Elect 0.1μF/50V | |
| C515, C516 | 3479215871 | Elect 0.15μF/50V | |


D
C
B
A
4
3
2
1
FRONT-A BOARD 4002015810
4002015810
FRONT-A BD
4002214700 FRONT BD.

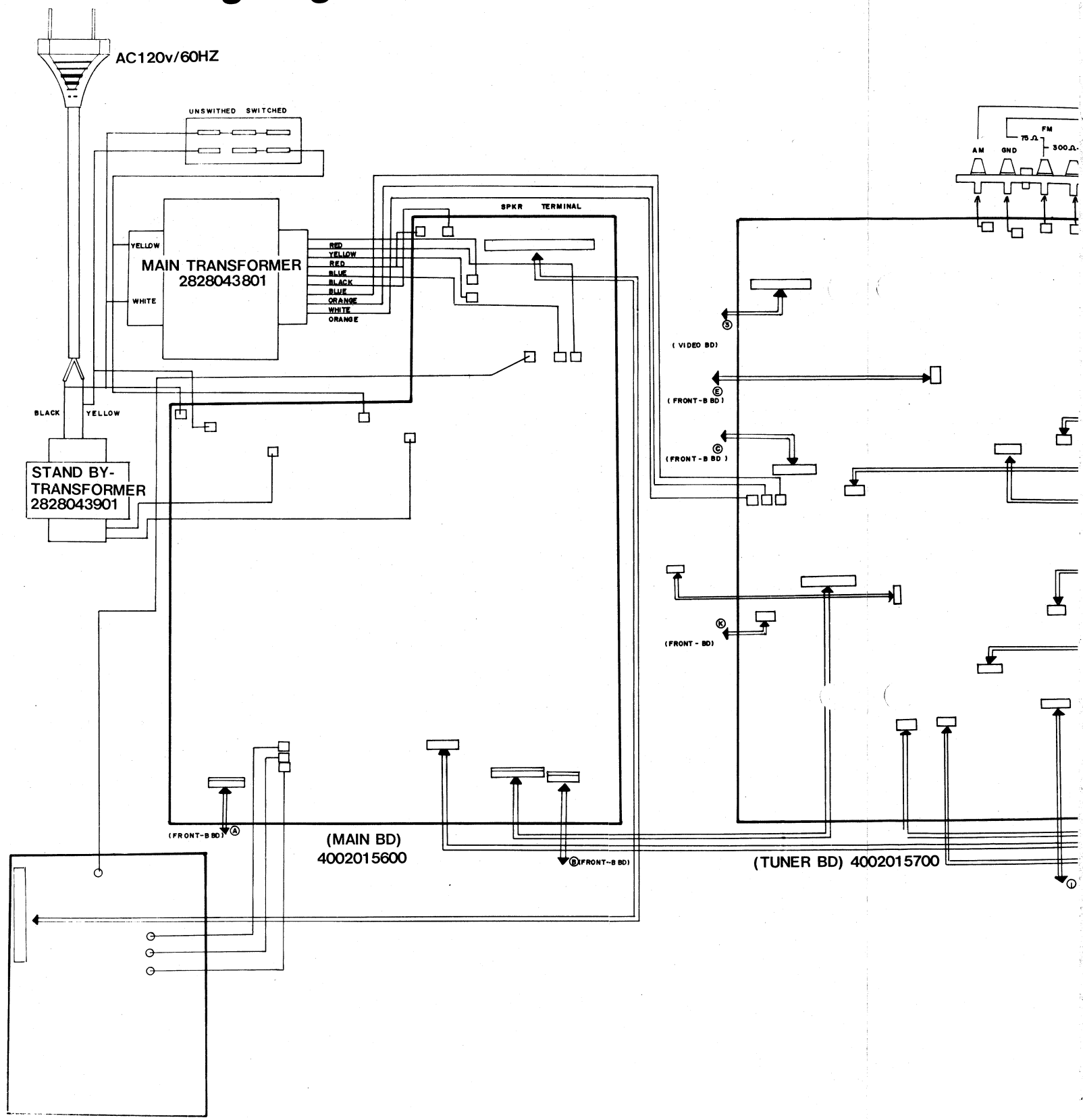
# Packing

| NO. | PARTS NO. | DESCRIPTION | Q'TY |
|---|---|---|---|
| 1 | 049605009116 | BOX CARTON | 1 |
| 2 | 9722012310 | CUSHION POLY | 2 |
| 3 | 9715000140 | FILM SOFT PE | 1 |
| 4 | | COMMANDER | 1 |
| 5 | 9705000710 | POLY BAG | 1 |
| 6 | 9077000302 | CORD CP | 1 |
| 7 | 4348000310 | ANT WIRE DIPOLE | 1 |
| 8 | 049605009116 | OPERATING INSTRUCTION | |

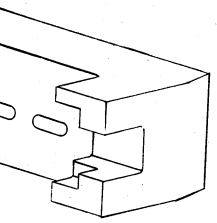


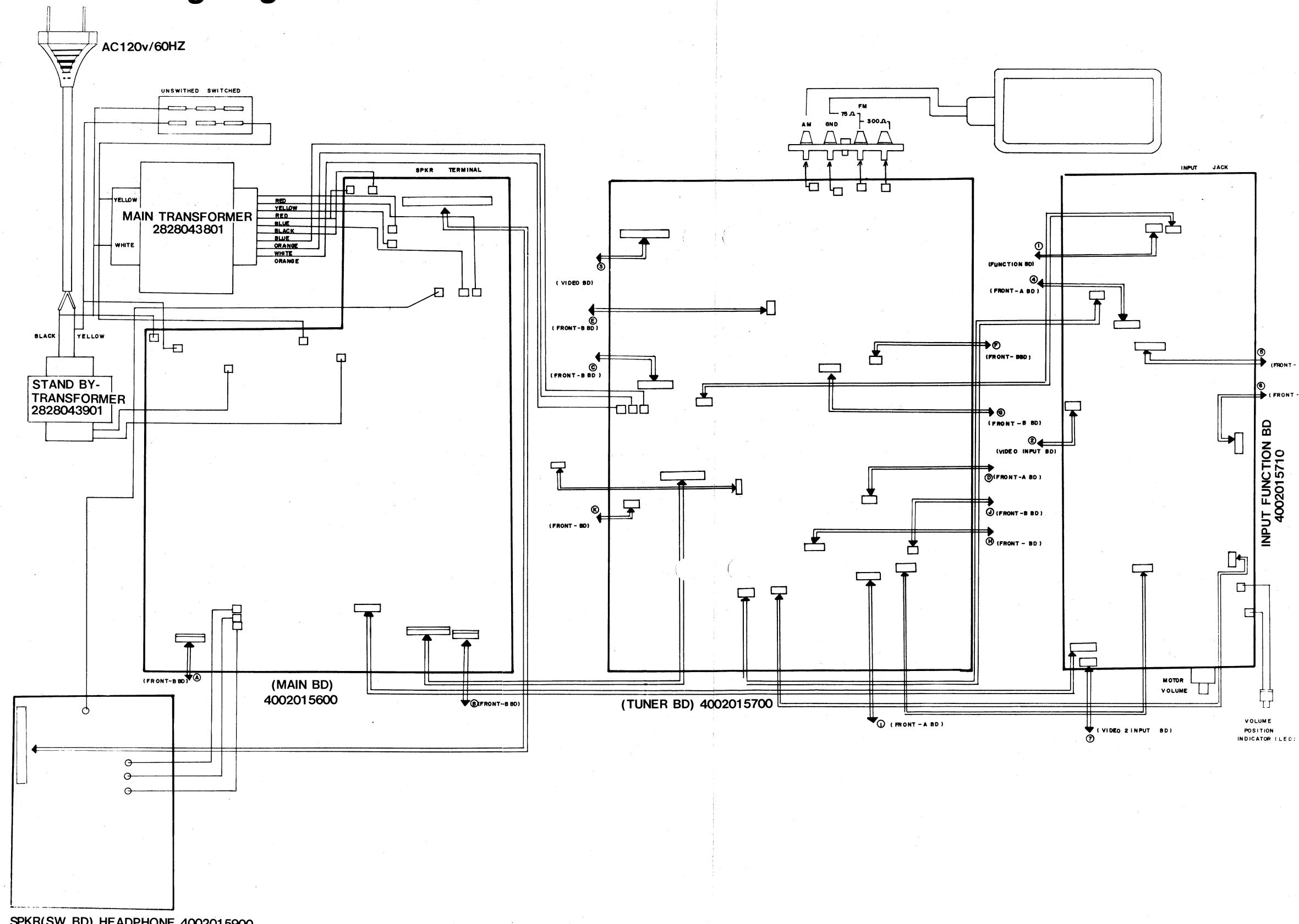



# Point to Point Wiring Diagram

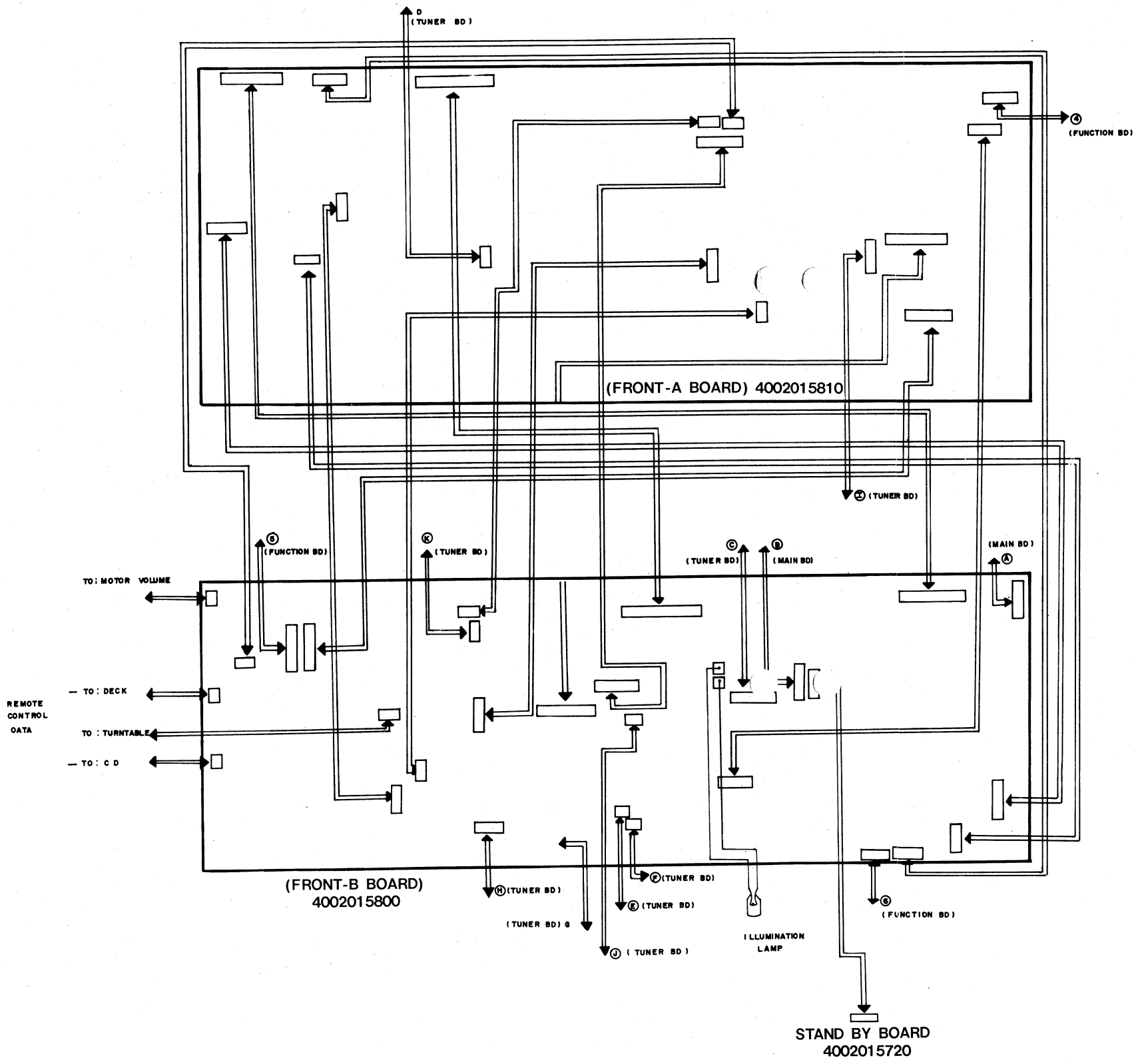


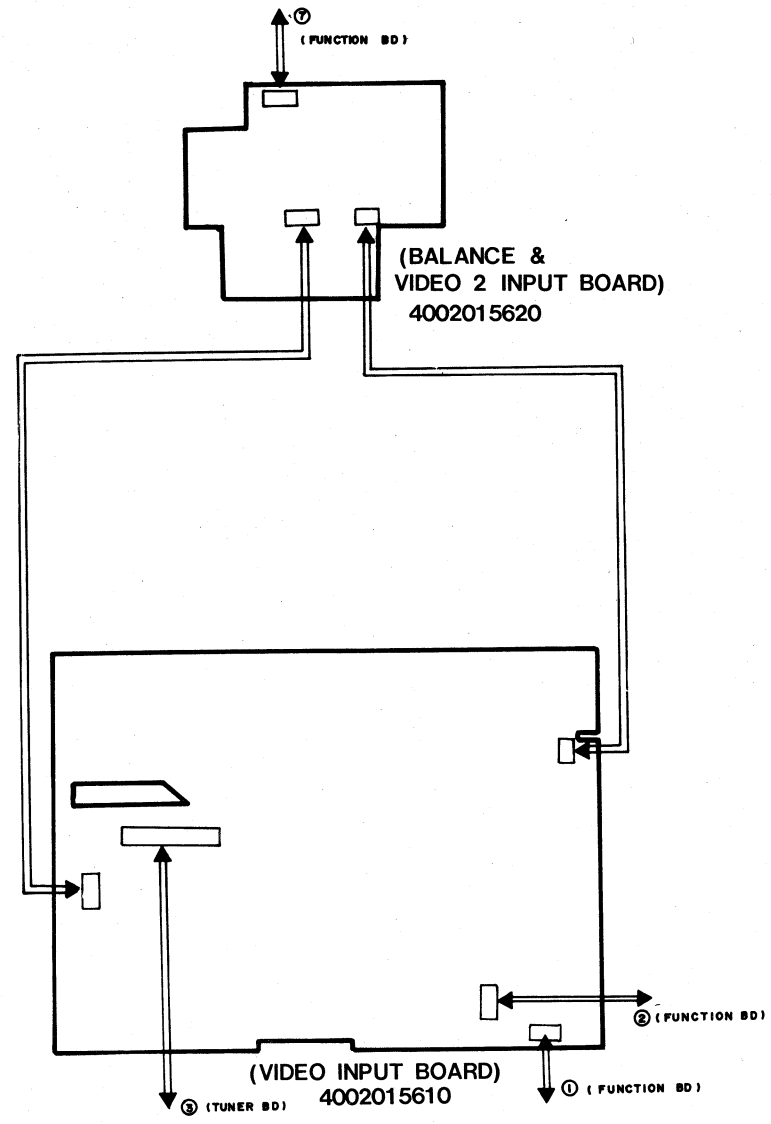
# Point to Point Wiring Diagram





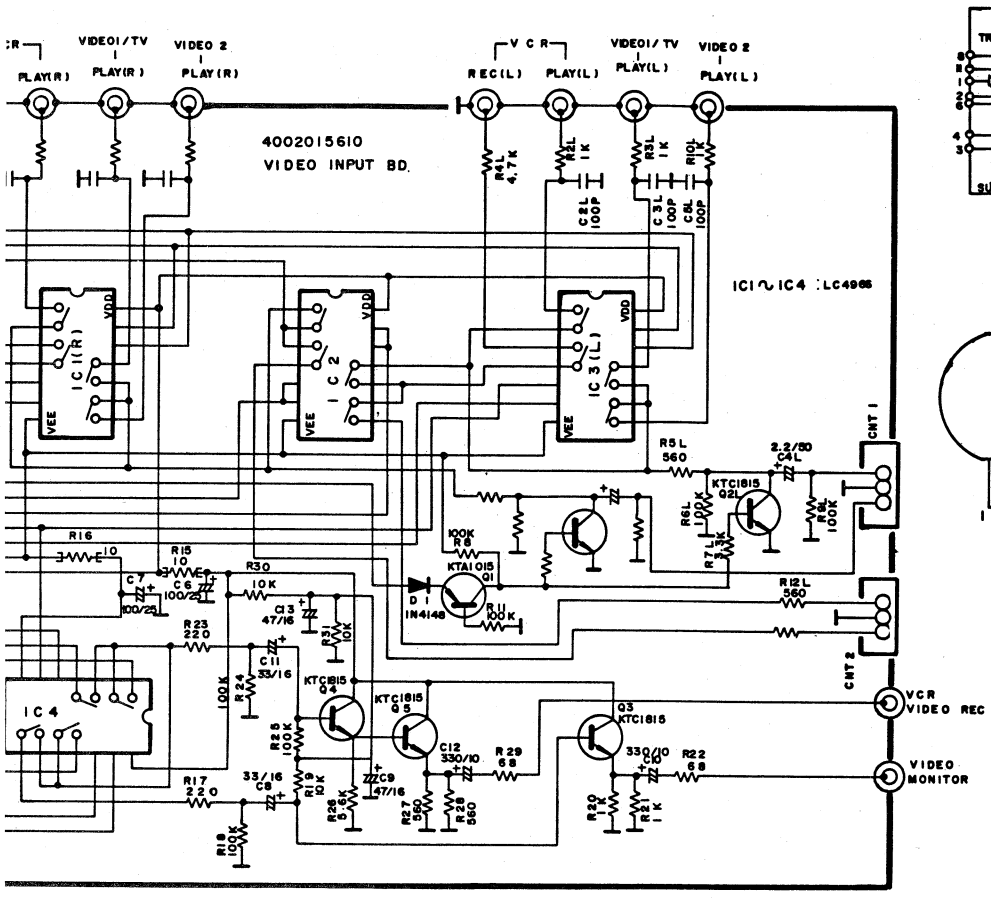
# Point to Point Wiring Diagram

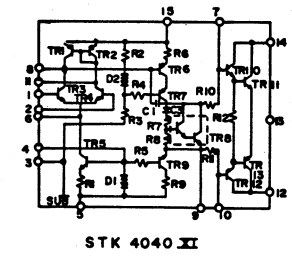


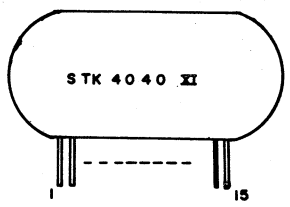



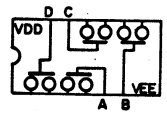
# Schematic Diagram
# S2770R

# Diagram
# 70R

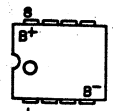


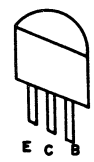



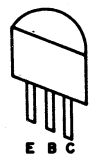

LC 4966



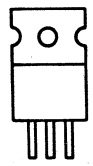

NJM 4558DD
NJM 4560 D




KTA 1015
KTC 1815
2SD1302

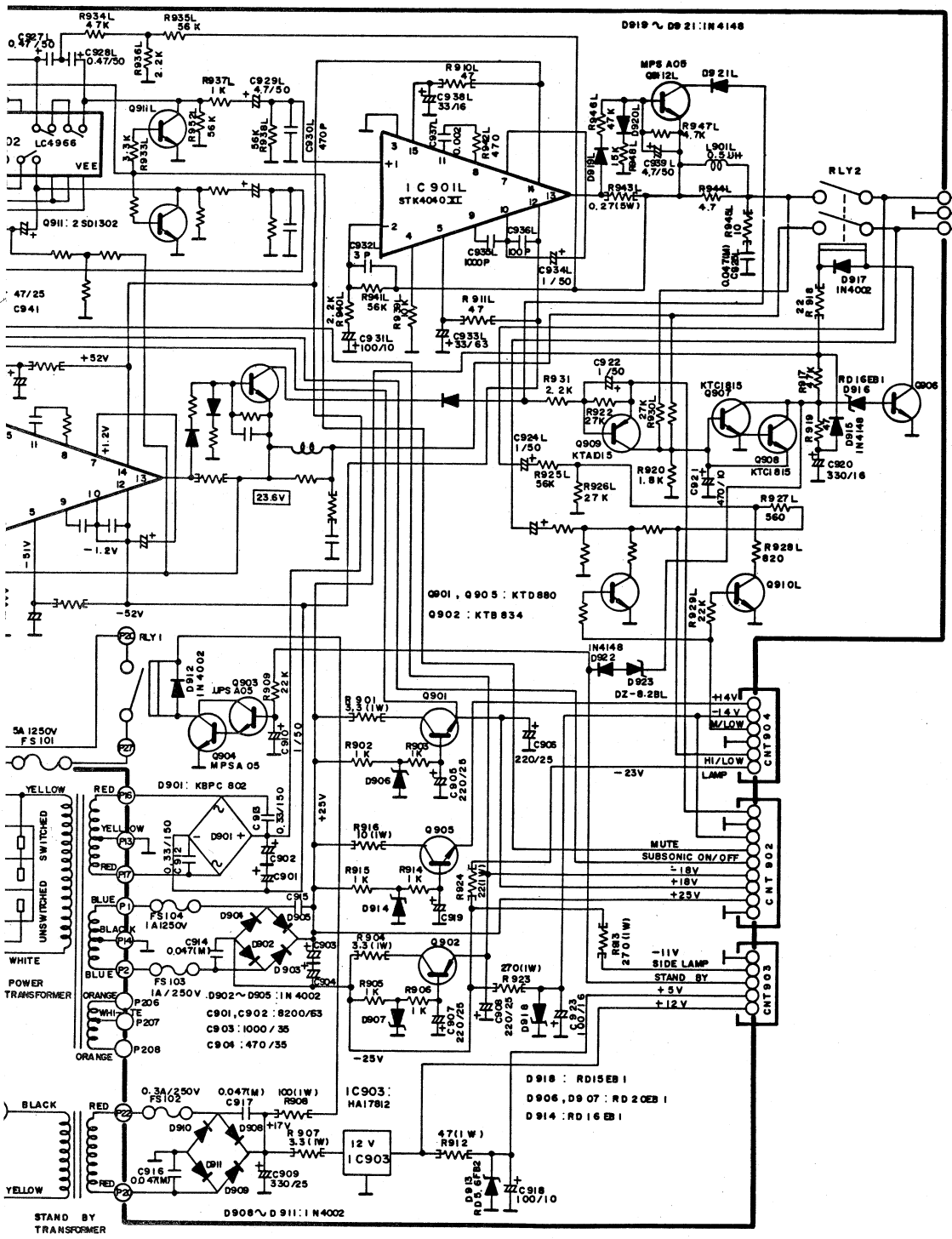



MPS 9633C
MPSA 05



B C E : KTB 834
KTD 880

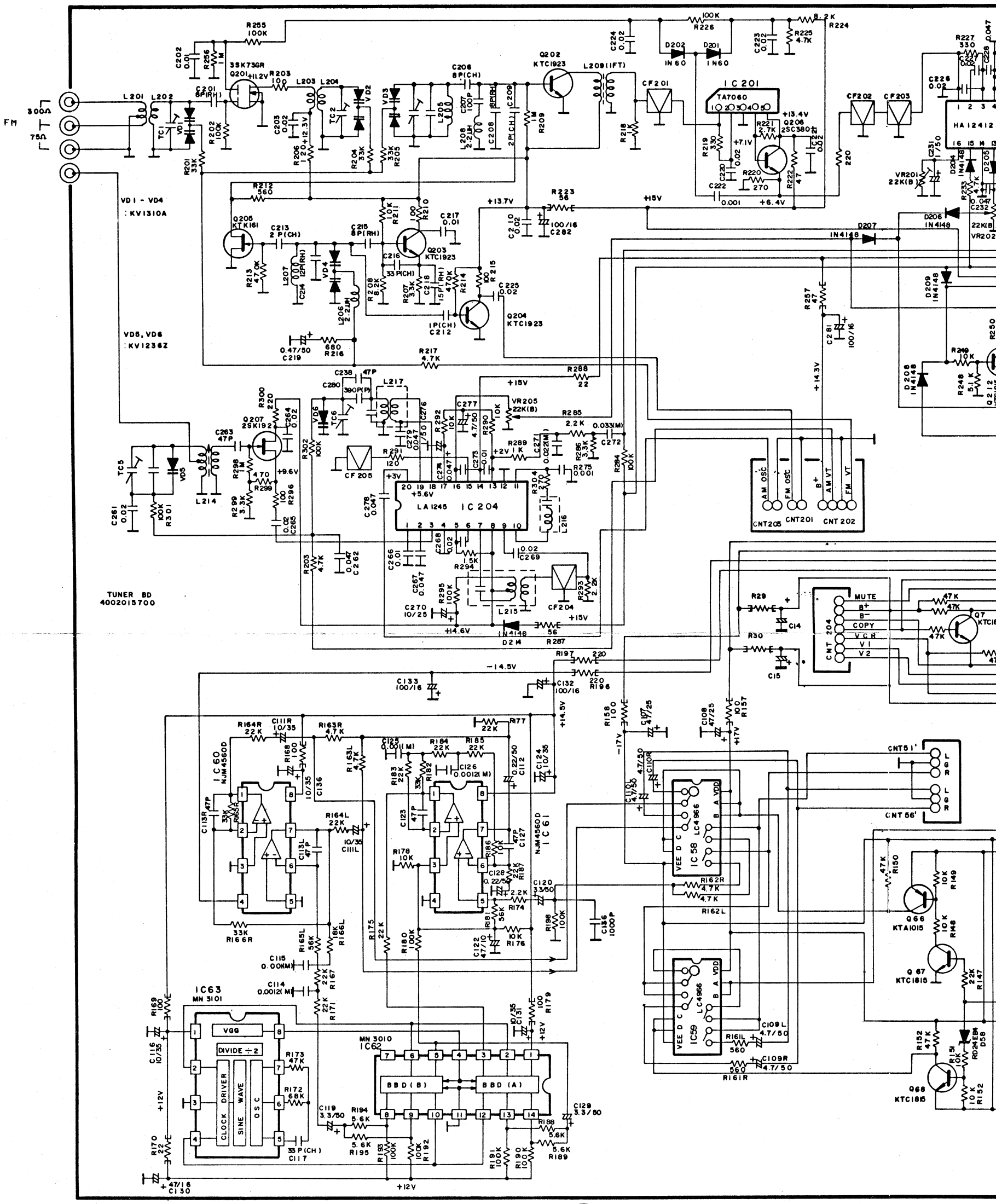
IN G OUT: HA 17812
: HA 17815

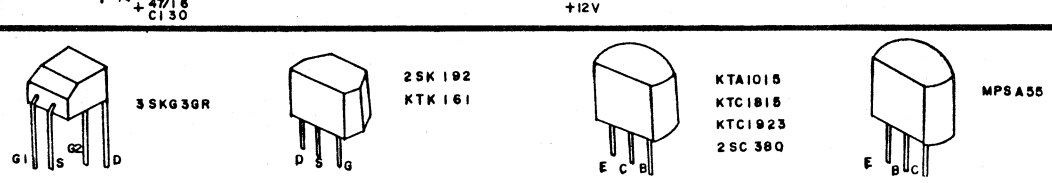



NOTE :

1. RESISTANCE VALUES ARE INDICATED IN OHMS UNLESS OTHERWISE SPECIFIED (K=1,000 , M=1,000,000)
2. CAPACITANCE VALUES ARE SHOWN IN MICROFARADS UNLESS OTHERWISE NOTED ( U= MICRO - MICROFARADS)
3. COMPONENT VALUES ARE SUBJECT TO CHANGE WITHOUT NOTICES.
4. ALL VOLTAGE ARE REFERENCED TO GROUND UNDER THE FOLLOWING CONDITIONS.
   DC : NO SIGNAL EXCEPT WHERE INDICATED.
   AC : R M S
   ▭ : 5mV AM SIGNAL INPUT, 30 % MODULATION AT 400Hz
   ⊏ ⊐ : 1m V FM SIGNAL INPUT, STEREO Or MONO EXCEPT WHERE INDICATED.
   MONO-L = R 75 KHz DEVIATION AT 1KHz.
   STEREO-L Or R 75 KHz DEVITION AT, PILOT 4KHz DEVIATION AT 1KHz.
5. THE ⚠ MARK FOUND ON SOME COMPONENT PARTS INDICATES THE IMPORTANCE OF THE SAFETY FACTOR OF THE PARTS. THEREFORE, WHEN REPLACING BE SURE TO USE PARTS OF IDENTICAL DESIGNATION.

# Schematic Diagram
# S2770R



# Diagram
## 'OR


P203
P204
P205
HA12412 IC202
HA12016 IC203
D203 IN4148
+5.4V
+3.7V
+13V
+11.2V
+6.9V
+15V
+5.8V
VR201 22K(B)
VR202 22K(B)
VR203 3.3K(B)
VR204 220K(B)
L210(WH) L211(BL)
L212(LPF)
L213 (LPF)
FM 600mV
AM 130mV
CNT 50'
Q208 KTC1815
Q209 KTC1815
IC REG 15V
CNT209'
Q213 KTC1815
Q214 KTC1815
Q210 KTA1015
Q211 KTC1815
Q212 KTC1815
Q215 MPS A55
Q216 MPS A55
Q217 KTC1815
Q218 KTC1815
D211 RD5.6 FB 2
CNT206
MUTE
STOP
CNT 208
CNT205
CNT209
CNT902'
A M
F M
ST
SIG
SUB SONIC
MUTE
CNT 4'
CNT 55'
CNT 56'
CNT 207
EQ ON
EQ OFF
SYNTHETIC
MONO
FS201 1A/250V
FS 202
Q66 KTA1015
Q63 KTA1015
Q62 KTA1015
Q70 KTC1015
Q67 KTC1815
Q64 KTC1815
Q61 KTC1815
Q68 KTC1815
Q65 KTC1815
Q69 KTC1815
Q7 KTC1815
Q6 KTC1815
HA 12016
LA 1245
HA 12412
AMPLIFIER
DC-AMP
AMP W/AGC
LIMITER
SUFFER
RECTIFIER
PHASE COMPERATOR
DEMODULATOR
MIXER STAGE
FREQUENCY DIVIDER
LEVEL SWITCH
DECORDER SWITCH
OSCILATOR
OR CIRCUIT

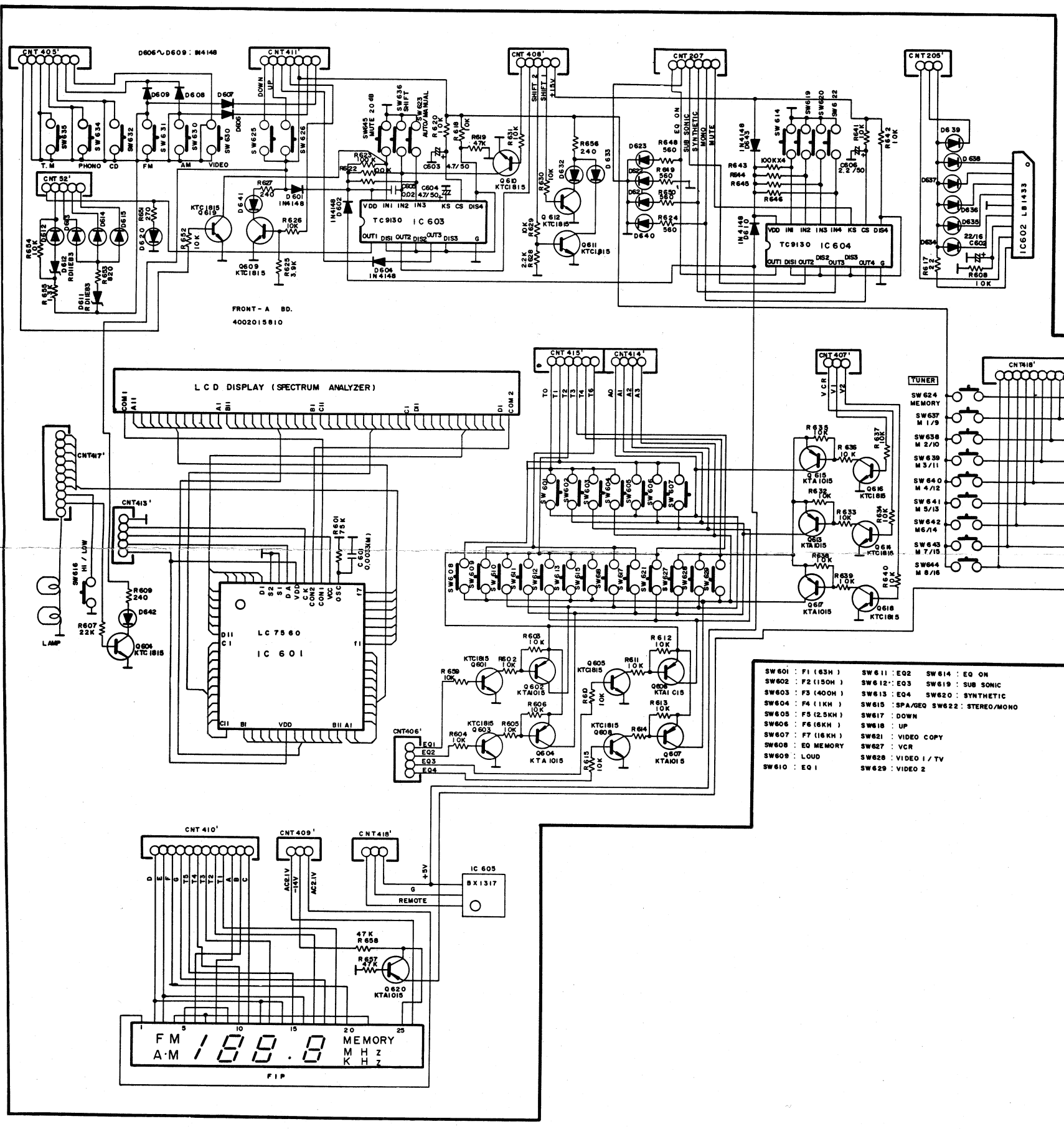
# Schematic Diagram

## S-2770RCP II

D E F G

# : Diagram

## RCP II




1 2 3 4 5